

W
Sharp & Smith
Surgical Instruments
Chicago, Ill.
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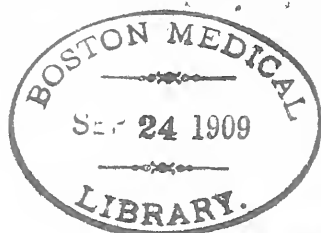
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CATALOGUE
OF
SHARP & SMITH,
IMPORTERS, MANUFACTURERS, WHOLESALE
AND RETAIL DEALERS IN
SURGICAL INSTRUMENTS,
DEFORMITY APPARATUS,
ARTIFICIAL LIMBS, ARTIFICIAL EYES, ELASTIC STOCKINGS,
TRUSSES, CRUTCHES, SUPPORTERS, GALVANIC
AND FARADIC BATTERIES, ETC.
SURGEONS' APPLIANCES
OF EVERY DESCRIPTION.



NO. 73 RANDOLPH STREET,
CHICAGO.
1889.




NOTICE.

As this issue of our Catalogue contains numerous cuts of Instruments which do not appear in our last edition, we have deemed it necessary (to save mistakes) to begin the figures of this book in advance of where we left off in last edition, so that any instrument ordered by number of either book, cannot be misunderstood by us.

When ordering through druggists ask for Sharp & Smith's make, as inferior goods are frequently substituted.

Please do not cut or mutilate this book. In ordering, always state Number of Figure and Page of Catalogue.

 Prices in this Catalogue are **STRICTLY NET** to Physicians, except where otherwise stated.

SUGGESTIONS TO OUR PATRONS.



THE name of your Town, County and State, and your own name, should be plainly written.

Articles sent by mail are sent at the risk of the purchaser.

When Instruments are sent for repair, the address of the person sending them should be plainly marked on outside of package.

Instruments ordered by parties unknown to us will be sent by express C. O. D., including the charges for returning the money; and a remittance sufficient to cover express charges should accompany the order.

Sharp or pointed Instruments, and articles wholly or partly of glass, cannot be sent by mail, excepting in tin boxes.

All parcels sent by mail, on which letter postage has not been paid, are opened and examined at the Chicago office, and if writing is found inclosed, letter rate is charged on the parcel, which sometimes amounts to far more than express rates. This penalty postage we charge to the person sending the parcel.

We pay great attention to having goods carefully packed, so that they can be transported to any part of the world safely; goods so packed cease to be our property when placed in the hands of the carrier. Therefore, for all delays or damages, the customer must look to the express company, who alone is legally responsible to the owner for their safe and prompt delivery.

All articles of our manufacture and those bearing our name, we warrant; and any article sold by us not answering our description, or not according to order, will be taken back cheerfully; and any errors on our part will be promptly rectified.

Reference to former correspondence should be avoided as much as possible. Do not depend on our remembering former orders, but designate the article wanted, either by name or description; and when measures are required send new measures. Attention to this suggestion will frequently save time and avoid delay.

Very respectfully,

SHARP & SMITH.

N. B.—Please do not cut or mutilate this book. In ordering, always state Number of Figure and Page of Catalogue.

ELASTIC GOODS A SPECIALTY.

WHOLESALE AND RETAIL.

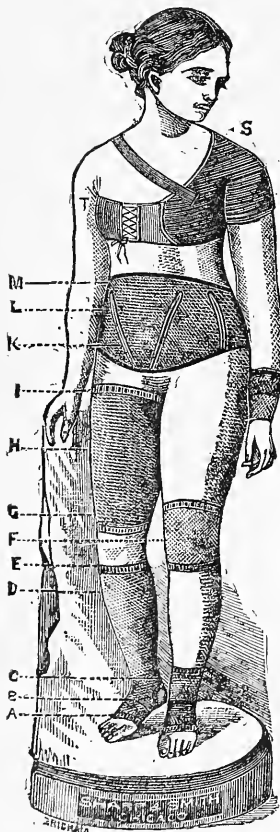
DIRECTIONS FOR MEASUREMENT.

Which should be taken in the Morning before rising. The Measurement of Length is essential. Give the exact Measurement. All Measurements for Length should be taken on inside of Limb. We allow for Expansion.

WHEN ORDERING PLEASE STATE QUALITY DESIRED, WHETHER OF STOUT OR FINE SILK, OR COTTON ELASTIC.

 **Silk Goods sent unless Cotton is Indicated in Order.**

GOODS MADE TO ORDER ON SHORT NOTICE WHEN SIZES ARE IRREGULAR OR EXTRA LARGE.



	STOUT SILK.	FINE SILK.	COTTON
FOR A THIGH STOCKING.—Circumference at A, B, C, D, E, F, G, H, I. Length from floor to F, and from F to I.....	\$ 9 00	\$ 7 50	\$ 5 75
FOR A THIGH LEGGING.—Circumference at C, D, E, F, G, H, I. Length from C to F, and from F to I.....	7 50	6 00	5 25
FOR A THIGH KNEE-CAP.—Circumference at E, F, G, H, I. Length from F to I.	5 00	4 00	3 50
FOR A THIGH PIECE.—Circumference at G, H, I. Length from G to I.....	2 50	2 00	1 75
FOR A KNEE STOCKING.—Circumference at A, B, C, D, E, F, G. Length from floor to F, and from F to G.	6 50	5 00	3 75
FOR A KNEE LEGGING.—Circumference at C, D, E, F, G. Length from C to F, and from F to G.....	5 00	4 00	3 50
FOR A KNEE-CAP.—Circumference at E, F, G. Length from E to F, and F to G.	2 50	2 00	1 75
FOR A GARTER STOCKING.—Circumference at A, B, C, D, E. Length from floor to E.	4 00	3 00	2 00
FOR A GARTER LEGGING.—Circumference at C, D, E. Length from C to E....	2 50	2 00	1 75
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FOR A WRISTLET —Circumference at N, O, P. Length from N to P.....	1 00
Wristlet, with hand-piece.....	2 50
FOR AN ABDOMINAL BELT.—Circumference at K, L, M. Depth in front and back.....	10 00	.....	8 00
FOR AN UMBILICAL BELT WITH PAD.—Circumference at the Navel.....	11 00	.....	9 00
FOR A SHOULDER CAP.—Circumference of Chest at Axilla T. Arm from Axilla to S, and Axilla to R. Arm three inches below Axilla.....	8 00	.....	6 00

The above are prices to Patients. Special prices to Physicians and the Trade, For extra large sizes an additional charge will be made,

AMPUTATING AND GENERAL OPERATING CASES.

We furnish the following cases at prices quoted, only when sold complete. We make several of each style at one time, and are thereby enabled to sell the cases complete, at a much less figure than the instruments would amount to if sold separately. In omitting any instrument we cannot allow the net price for each instrument, and if cases are wanted modified we will make the prices reasonable, or will be pleased to send quotations on same or entirely new and special cases which we make it a point to turn out very quickly.

Old instruments can be repaired and made to look like new, and put in cases with new instruments.

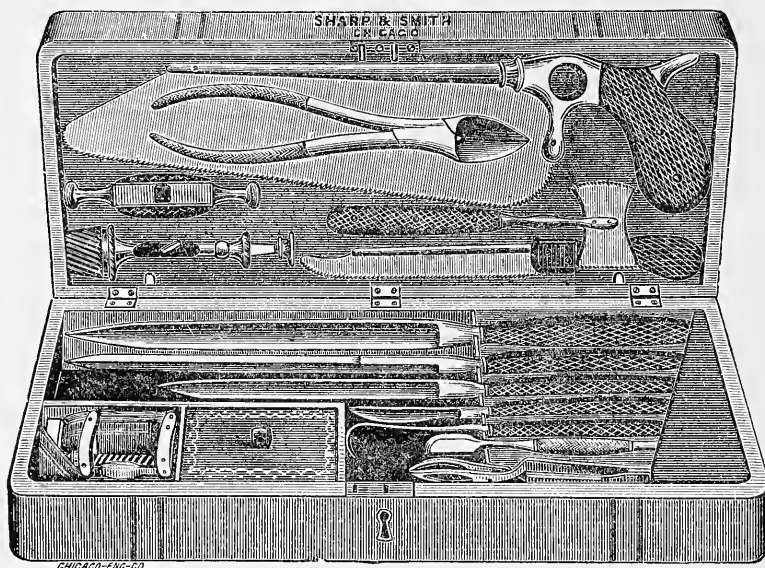
FIG.

* 900.	Sharp & Smith's Amputating and Trephining Case.....	\$26 00
901.	“ “ “ “ “ “ No. 2	24 75
* 902.	Parker's General Operating Set.....	67 00
* 903.	Sharp & Smith's Set of Amputating Instruments No. 3..	18 75
* 904.	“ “ Amputating and Minor Operating Set.....	39 00
904-A.	Sharp & Smith's Amputating and Minor Operating Set ivory handles.....	51 00
* 905.	Sharp & Smith's General Operating Case No. 5, with Minor Operating Case inclosed.....	75 00
906.	Sharp & Smith's General Operating Case No. 6 with Minor Operating Case inclosed.....	52 50
906-A.	Sharp & Smith's General Operating Case No. 7 with Minor Operating Case inclosed.....	125 00
907.	Sharp & Smith's General Operating Set No. 1	52 00
907-A.	“ “ “ “ “ “ in ivory handles....	63 00
908.	“ “ “ “ “ “ No. 2	75 00
909.	Mott's General Operating Set.....	54 00
910.	Markoe's “ “ “	50 00
911.	California “ “ “	50 00
912.	Buck's General Operating Set.....	135 00
913.	Detmold's “ “ “	48 50
914.	Seymour's “ “ “	132 00
915.	Parker's Compact Operating Set.....	46 50
916.	Blackman's General “.....	98 00
917.	Trephining Set.....	12 00
918.	Post's General Operating Set	109 00
919.	Sharp & Smith's Operating Set	33 75
920.	Bone Exsecting Set.....	48 75
921.	Wood's General Operating Set.....	52 00
922.	Hamilton's “ “ “	75 00
923.	Conant's Amputating and Minor Operating Case.....	40 00

All instruments designated by a * are illustrated.

See “Supplement” for other Operating Cases.

AMPUTATING AND GENERAL OPERATING CASES.



*Fig. 900. Sharp & Smith's Amputating and Trephining Case, No. 1.

Sharp & Smith's Amputating and Trephining Set, No. 1.

- | | |
|---------------------------------------|---|
| 1 Liston's long Knife, hip and thigh. | 1 Capital Saw. |
| 1 Liston's medium Knife, leg and arm. | 1 Metacarpal Saw. |
| 1 Catling, foot and hand. | 1 Galt's conical Trephine and Handle. |
| 1 Tenaculum. | 1 Pair spring-catch Fenestrated Artery Forceps. |
| 1 Scalpel. | 1 Tourniquet. |
| 1 Elevator and Raspatory. | 1 Pair Liston's Bone Forceps. |
| 1 Brush. | Needles, Silk, Plastic Pins, Wax, etc. |
| 1 Hey's Saw. | |

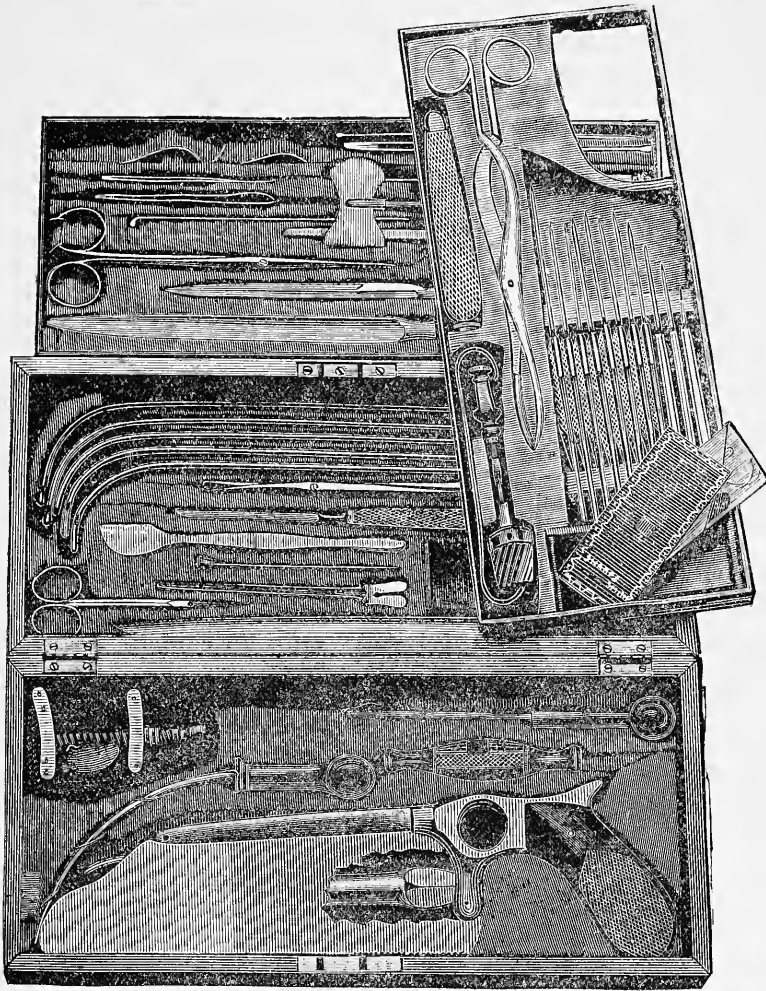
Mahogany Case, lined with oil dyed velvet.....\$26 00

Fig. 901. Sharp & Smith's Amputating and Trephining Set, No. 2.

- | | |
|---------------------------|---|
| 1 Liston's Knife. | 1 Metacarpal Saw. |
| 1 Catling. | 1 Galt's Trephine. |
| 1 Tenaculum. | 1 Pair spring-catch Fenestrated Artery Forceps. |
| 1 Scalpel. | 1 Tourniquet. |
| 1 Elevator and Raspatory. | 1 Pair Liston's Bone Forceps. |
| 1 Brush. | Needles, Silk, Plastic Pins, Wax, etc. |
| 1 Hey's Saw. | |
| 1 Capital Saw. | |

Mahogany Case, lined with oil-dyed velvet.....\$24 75

All instruments designated by a * are illustrated.



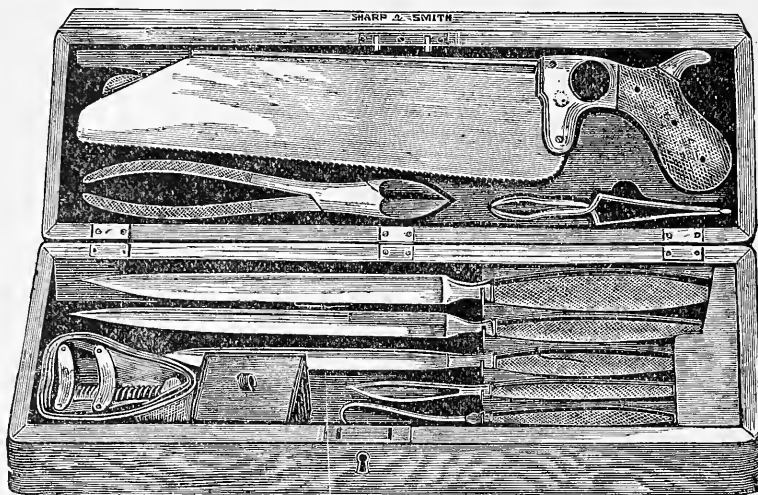
*Fig. 902. Parker's General Operating Set.

- | | |
|--|---|
| 1 Liston's Amputating Knife, screw handle. | 1 Tiemann & Co.'s Bullet Forceps. |
| 1 Liston's Amputating Knife medium Size. | 1 Tenotome. |
| 1 Small Catlin. | 1 Pair Parker's Retractors. |
| 1 Capital Saw. | 1 Small Trocar, straight. |
| 1 Metacarpal Saw. | 1 Rectum Trocar, curved. |
| 1 German Silver Wire Eye Speculum. | 1 Pair Artery Forceps, plain. |
| 1 Hey's Saw. | 1 Pair Polypus Forceps. |
| 1 Trephining Elevator and Raspatory | 1 Steel Sound. |
| 1 Galt's Trephine and Handle. | 2 Lithotomy Staffs. |
| 1 Finger Knife. | 1 Lithotomy Bistoury. |
| 1 Curved Probe Pointed Bistoury. | 1 Pair Lithotomy Forceps. |
| 1 Curved Sharp Pointed Bistoury. | 1 Pair Liston's Bone Forceps. |
| 1 Cooper's Hernia Knife. | 1 Pair Eye Scissors, curved on the flat. |
| 3 Scalpels, assorted. | 2 Silver Catheters. |
| 1 Cataract Knife. | 1 Spiral Tourniquet. |
| 1 Parker's Lachrymal Needle. | 1 Eye Needle, curved. |
| 1 Exploring Trocar. | 1 Set Parker's Aneurism Needles. |
| 1 Director, steel. | 1 Pair Strabismus Forceps. |
| 1 Pair Probes, Silver. | 1 Pair Artery Forceps, spring-catch, plain. |

Needles, Silk, Plastic Pins, Wax, Etc.

Rosewood Case, brass-bound, lined with silk velvet, one patent leather cover, waterproof...\$67 00

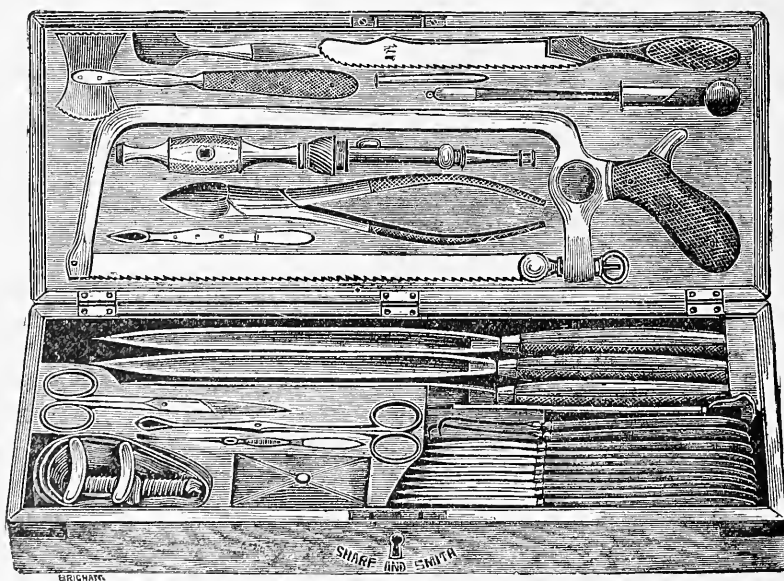
AMPUTATING AND GENERAL OPERATING CASES.



*Fig. 903. Sharp & Smith's Set of Amputating Instruments. No. 3.

- | | |
|-------------------------------------|--|
| 1 Liston's Knife, hip and thigh. | 1 Metacarpal Saw. |
| 1 Liston's Knife, leg and arm. | 1 Capital Saw, solid handle. |
| 1 Catling, small, hand and foot. | 1 Tourniquet. |
| 1 Scalpel. | 1 Pair Bone Forceps. |
| 1 Tenaculum. | Needles, Silk, Plastic Pins, Wax, etc. |
| 1 Pair spring-catch Artery Forceps. | |

Mahogany Case, lined with fine oil-dyed velvet.....\$18 75



*Fig. 904. Sharp and Smith's Amputating and Minor Operating Set. For contents see next page.....\$39 00

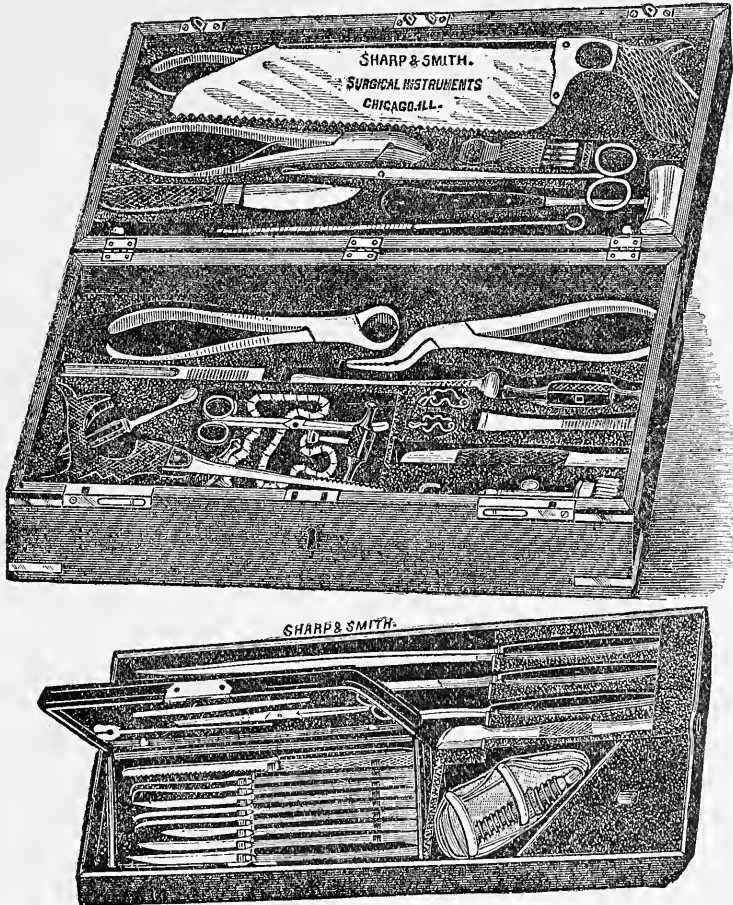
AMPUTATING AND GENERAL OPERATING CASES.

*** Fig. 904. Sharp & Smith's Amputating and Minor Operating Set.**
 Illustrated on preceding page.

- | | |
|---------------------------------|--|
| 1 Bow Saw, two blades. | 1 Director. |
| 1 Large Amputating Knife. | 1 Hey's Saw. |
| 1 Medium Amputating Knife. | 1 Movable Back Saw. |
| 1 Small Amputating Knife. | 1 Conical Trephine. |
| 1 Pair Artery Forceps, Bull Dog | 1 Bone Forceps, with spring. |
| 3 Scalpels. | 1 Trocar and Canula |
| 1 Finger Bistoury. | 1 Vulsellum Forceps. |
| 1 Curved Probe Bistoury. | 1 Tortion Forceps. |
| 1 Tenotome. | 1 Elevator and Brush. |
| 1 Curved Sharp Bistoury. | 1 Pair Straight Scissors. |
| 1 Hernia Bistoury. | 1 Pair Curved Scissors |
| 1 Tenaculum. | 1 Exploring Needle |
| 1 Aneurism Needle. | Needles, Silk, Plastic Pins, Wax, etc. |
| 1 Spiral Tourniquet. | |

Brass bound Rosewood Case, velvet-lined\$39 00

Fig. 904-A. Same, with Ivory Handles..... 51 00



*** Fig 905. Sharp & Smith's General Operating Case, No. 5, with Minor Operating Case inclosed. For contents see next page\$75 00**

AMPUTATING AND GENERAL OPERATING CASES.

*Fig. 905. Sharp & Smith's General Operating Case No. 5, with Minor Operating Case inclosed.

See preceding page.

- | | |
|-----------------------------------|------------------------------------|
| 1 Liston's Knife, hip and thigh. | 1 Tiemann & Co.'s Bullet Probe. |
| 1 Liston's Knife, leg and arm. | 1 Lead Mallet. |
| 1 Catlin, small. | 1 Bone Chisel. |
| 1 Bow Saw. | 1 Bone Gouge. |
| 1 Liston's Bone Forceps, curved. | 1 Scissors, curved on the flat. |
| 1 Spiral Tourniquet. | 1 Dressing and Polypus Forcep. |
| 1 Galt's Trephine and Handle. | 1 Piffard's Bone Scoop. |
| 1 Elevator and Raspatory. | 1 Sayre's Periosteotome. |
| 1 Hey's Saw. | 1 Satterlee's Bone Forcep. |
| 1 Brush. | 2 Steel Serresfins. |
| 1 Trocar and Canula. | 1 Van Buren's Sequestrum Forcep |
| 1 Heavy Cartilage Knife. | 1 Curved Hand Gouge. |
| 2 Retractors, Parker's. | 1 Ferguson's Lion Jaw Bone Forcep. |
| 1 Tiemann & Co.'s Bullet Forceps. | 1 Chain Saw. |

The following instruments included in this set are fitted into a compact minor operating case, which can be removed from the larger one and carried in the pocket if desired. This minor case is leather covered and velvet lined, and contains:

- | | |
|-------------------------|----------------------------|
| 1 Metacarpal Saw. | 1 Tenaculum. |
| 2 Scalpels. | 1 Bulldog Artery Forcep. |
| 1 Sharp-point Bistoury. | 1 Pair Scissors. |
| 1 Probe-point Bistoury. | 1 Director and Tongue Tie. |
| 1 Tenotome. | 1 Aneurism Needle. |
| 1 French Finger Knife. | 2 Long Silver Probes. |
| 1 Plain Artery Forcep. | |

Twelve needles, silk, coil of silver wire, wax and pins, all in a finely carved, brass bound case, lined with oil-dyed velvet, and supplied with patent leather, slip-over cover, waterproof. \$75 00

Fig. 906. Sharp & Smith's Operating Case No. 6.—Same style as above.

- | | |
|----------------------------------|----------------------------------|
| 1 Liston's Knife, hip and thigh. | 1 Heavy Cartilage Knife. |
| 1 Liston's Knife, leg and arm. | 2 Retractors, Parker's. |
| 1 Catlin, small. | 1 Tiemann & Co.'s Bullet Forcep. |
| 1 Bow Saw. | 1 Tiemann & Co.'s Bullet Probe. |
| 1 Bone forcep, Liston's best. | 1 Lead Mallet. |
| 1 Spiral Tourniquet. | 1 Bone Chisel. |
| 1 Galt's Trephine and Handle. | 1 Bone Gouge. |
| 1 Elevator and Raspatory. | 1 Scissors, curved on the flat. |
| 1 Hey's Saw. | 1 Dressing and Polypus Forcep. |
| 1 Brush. | 1 Serresfins. |
| 1 Trocar and Canula. | 1 Vulsellum Forcep. |

The following instruments included in this set are fitted into a compact minor operating case, which can be removed from the larger one and carried in the pocket if desired. The minor case is leather covered and velvet lined, and contains:

- | | |
|-------------------------|----------------------------|
| 1 Metacarpal Saw. | 1 Tenaculum. |
| 2 Scalpels. | 1 Bulldog Artery Forcep. |
| 1 Sharp-point Bistoury. | 1 Pair Scissors. |
| 1 Probe-point Bistoury. | 1 Director and Tongue Tie. |
| 1 Tenotome. | 1 Aneurism Needle. |
| 1 French Finger Knife. | 1 Long Silver Probe. |
| 1 Plain Artery Forcep. | 12 Needles. |

Silk, coil of silver wire, pins and wax, all in a neat, brass-bound case, lined with oil-dyed velvet. \$52 50

AMPUTATING AND GENERAL OPERATING CASES.**Fig. 906-A. Sharp & Smith's Complete Operating Case No. 7.**

Same Style as Fig. 905.

- | | |
|-------------------------------------|-----------------------------------|
| 1 Liston's Knife, hip and thigh. | 1 Bone Gnawing Forcep. |
| 1 Liston's Knife, leg and arm. | 2 Sponge Holders. |
| 1 Catlin, small. | 1 Horn Screw for Lockjaw. |
| 1 Bow Saw, two blades. | 1 Lithotomy Staff. |
| 1 Liston's Bone Forceps, curved. | 1 Lithotomy Forcep. |
| 1 Spiral Tourniquet. | 1 Lithotomy Bistoury. |
| 1 Galt's Trephine and Handle. | 1 Gaylard's Bone Drill. |
| 1 Elevator and Raspatory. | 1 Set Brainard's Bone Drills. |
| 1 Hey's Saw. | 1 Fenestrated Slide-catch Forcep. |
| 1 Brush. | 1 Fritche's Needle Holder. |
| 1 Trocar and Canula. | 1 Cooper's Hernia Knife. |
| 1 Heavy Cartilage Knife. | 1 Large Trepanning Scalpel. |
| 2 Retractors, Parker's. | 2 Steel Sounds. |
| 1 Tiemann & Co.'s Bullet Forceps. | 2 Male Catheters, plated. |
| 1 Tiemann & Co.'s Bullet Probe. | 1 Pair Vulsellum Forceps. |
| 1 Lead Mallet. | 1 Plain Artery Forcep, heavy. |
| 1 Bone Chisel. | 1 Eye Speculum, Noyes', best. |
| 1 Bone Gouge. | 1 Dix's Spud. |
| 1 Scissors, curved on the flat. | 1 Beer's Knife. |
| 1 Polypus Forcep. | 1 Linear Knife. |
| 1 Piffard's Bone Scoop. | 1 Iris Forcep. |
| 1 Sayre's Periosteotome. | 1 Iris Scissors. |
| 1 Satterlee's Bone Forceps. | 1 Curved Trocar. |
| 2 Steel Serresfins. | 1 Eye Needle. |
| 1 Van Buren's Sequestrum Forceps. | 1 Brunn's Bone Scoop. |
| 1 Curved Hand Gouge. | 1 Chain Saw Carrier. |
| 1 Ferguson's Lion Jaw Bone Forceps. | 1 Double Operating Hook. |
| 1 Chain Saw, rotating handles. | 1 Adams' Subcutaneous Saw. |

The following instruments included in this set are fitted into a compact minor operating case, which can be removed from the larger one and carried in the pocket if desired. This minor case is leather covered and velvet lined, and contains :

- | | |
|-------------------------|--|
| 1 Metacarpal Saw. | 1 Bulldog Artery Forceps. |
| 2 Scalpels. | 1 Pair Scissors. |
| 1 Sharp-point Bistoury. | 1 Director and Tongue Tie. |
| 1 Probe-point Bistoury. | 1 Aneurism Needle. |
| 1 Tenotome. | 2 Long Silver Probes. |
| 1 French Finger Knife. | 12 Needles, silk, coil of silver wire, one |
| 1 Plain Artery Forcep. | coil iron wire, wax and pins. |
| 1 Tenaculum. | |

All in a finely finished case, lined with fine oil-dyed velvet, with patent leather waterproof cover for case.....\$125 00

ASK FOR

SHARP & SMITH'S INSTRUMENTS

When Ordering through Dealers.

AMPUTATING AND GENERAL OPERATING CASES.

Fig. 907. Sharp & Smith's General Operating Set No. 1.

1 Amputating Saw, best.	1 Lithotomy Bistoury.
1 Metacarpal Saw, movable back.	1 Grooved Director and Tongue Tie.
1 Galt's Trephine and Handle.	1 Set Mott's Aneurism Needles.
1 Hey's Skull Saw.	1 Tenaculum.
1 Trephine Elevator and Raspatory.	1 Hernia Knife.
1 Pair Bone Forceps.	1 Bistoury, probe-pointed.
1 Pair Lithotomy Forceps.	1 Bistoury, sharp-pointed.
1 Pair Bullet Forceps.	4 Scalpels, assorted.
1 Trocar and Canula.	1 Tenotome.
2 Urethral Sounds.	1 Pair Scissors, straight.
1 Lithotomy Staff.	1 Pair Scissors, curved on flat.
1 Male Catheter, silver plated.	1 Pair Artery Torsion or Needle For-
1 Spiral Tourniquet.	ceps.
1 Amputating Knife, long.	1 Pair Vulsellum Forceps.
1 Amputating Knife, medium.	1 Exploring Needle.
1 Catlin, long.	1 Pair Artery Forceps, fenestrated.
Needles, Silk, Plastic Pins, Wax, etc.	

Neat Brass-bound Rosewood Case, lined with velvet....\$52 00

907 A. Same, with ivory handles..... 63 00

Fig. 908. Sharp & Smith's General Operating Set, No. 2.

2 Retractors.	2 Silver Probes, five inches.
4 Scalpels, assorted sizes.	1 Silver Probe, seven inches.
1 Straight Bistoury.	1 Nelaton Probe.
1 Sharp-curved Bistoury.	1 Mathieu's Throat Forceps.
1 Probe-curved Bistoury.	1 Pair Liston's Bone Forceps.
1 Hernia Knife.	1 Trocar.
1 Aneurism Needle.	1 Galt's Trephine.
1 Tenaculum.	1 Van Buren's Sequestrum Forceps.
1 Director and Tongue Tie.	1 Pair Bone Gouging Forceps.
1 Tourniquet.	3 Steel Sounds.
1 Liston's Knife.	1 Screw Handle for same.
1 Catlin.	3 Silver-plated Catheters.
1 Screw Handle to fit above.	1 Bone Chisel.
1 Bow Saw with two Blades.	1 Bone Gouge.
1 Screw Handle to fit above.	1 Sayre's Periosteotome.
1 Phelps' Artery Forceps.	1 Tiemann & Co.'s Bullet Forceps.
1 Plain Artery Forceps.	1 Polypus Forceps, straight.
1 Pair Straight Scissors.	1 Lithotomy Director.
1 Pair Curved Scissors.	1 Coil Silver Wire.
1 Trephine Elevator.	Needles, Silk, Plastic Pins, Wax, etc.

Rosewood Case, brass-bound, leather cover.....\$75 00

AMPUTATING AND GENERAL OPERATING CASES.**Fig. 909. Mott's General Operating Set.**

- | | |
|--------------------------------------|--|
| 1 Mott's Knife, large. | 1 Curved Bistoury, sharp-pointed. |
| 1 Mott's Knife, medium. | 1 Curved Bistoury, probe-pointed. |
| 1 Small Catlin. | 1 Steel Director. |
| 1 Capital Saw. | 2 Silver Probes. |
| 1 Metacarpal Saw. | 1 Pair Polypus Forceps. |
| 1 Tourniquet. | 1 Pair Scissors, straight. |
| 1 Tenaculum. | 1 Pair Scissors, angular curved. |
| 1 Pair Artery Forceps, plain. | 2 Mott's Retractors. |
| 1 Pair Artery Forceps, spring-catch, | 1 Finger Knife. |
| plain. | 3 Scalpels. |
| 1 Tiemann & Co.'s Bullet Forceps. | 1 Double Hook. |
| 1 Liston's Bone Forceps, best. | 1 Hey's Saw. |
| 1 Galt's Trephine and Handle. | 1 Trocar and Canula. |
| 1 Trephining Elevator and Raspatory. | Needles, Silk, Plastic Pins, Wax, etc. |
| 1 Tenotome. | |

Rosewood Case, lined with oil-dyed velvet.....\$54 00

Fig. 910. Markoe's General Operating Set.

- | | |
|---------------------------|--|
| 1 Liston's Knife, Long. | 1 Elevator and Raspatory. |
| 1 Liston's Knife, medium. | 1 Pair Artery Forceps, plain. |
| 1 Liston's Knife, small. | 1 Pair Artery Forceps, spring-catch, |
| 1 Straight Bistoury. | fenestrated. |
| 1 Curved Bistoury. | 1 Pair Vulsellum Forceps. |
| 1 Curved Bistoury Probe. | 1 Pair Toe-Nail Forceps. |
| 1 Hernia Knife. | 1 Capital Saw. |
| 2 Scalpels. | 1 Galt's Trephine. |
| 1 Tenotome. | 1 Pair Parker's Retractors. |
| 1 Tenaculum. | 1 Pair Liston's Bone Forceps. |
| 1 Aneurism Needle. | 1 Bone Gouge. |
| 1 Tourniquet. | 1 Silver Male Catheter. |
| 1 Chisel. | 1 Steel Sound. |
| 1 Metacarpal Saw. | Needles, Silk, Plastic Pins, Wax, etc. |
| 1 Hey's Saw. | |

Rosewood Case, lined with velvet.....\$50 00

Fig. 911. California General Operating Set.

- | | |
|--------------------------------------|--|
| 1 Capital Saw. | 1 Curved Bistoury, probe-pointed. |
| 1 Amputating Knife, long. | 1 Curved Bistoury, sharp-pointed. |
| 1 Amputating Knife, medium. | 3 Scalpels, assorted sizes. |
| 1 Small Catlin. | 1 Tenotomy Knife. |
| 1 Scalpel. | 1 Aneurism Needle. |
| 1 Elevator and Raspatory. | 1 Pair Polypus Forceps. |
| 1 Pair Artery Forceps, spring catch, | 1 Hey's Saw. |
| plain. | 1 Metacarpal Saw. |
| 1 Pair Artery Forceps, slide-catch, | 1 Pair Dissecting Scissors. |
| bulbous points. | 1 Double Hook. |
| 1 Tourniquet. | 1 Green's Tonsil Bistoury. |
| 1 Trocar, straight. | 1 Probang. |
| 1 Tongue Depressor, japanned. | 1 Catheter, German silver, plated. |
| 1 Pair Liston's Bone Forceps. | 1 Metal Bougie. |
| 1 Galt's Trephine and Handle. | 1 Pair Tiemann & Co.'s Bullet Forceps. |
| 1 Steel Director. | Needles, Silk, Plastic Pins, Wax, etc. |
| 1 Straight Bistoury. | |

Mahogany Case, lined with oil-dyed velvet.....\$50 00

AMPUTATING AND GENERAL OPERATING CASES.**Fig. 912.—Buck's General Operating Set.**

1 Liston's long Knife, hip and thigh.	1 Pair Lithotomy Forceps.
1 Liston's medium Knife, leg and arm.	1 Glass Ear Speculum.
1 Metacarpal Knife, large.	1 Tourniquet.
1 Straight Bistoury, ferruled handled.	4 Silver Catheters, Nos. 3, 6, 9 and 12.
1 Curved Bistoury, sharp point.	1 Tiemann & Co.'s Bullet Forceps.
1 Curved Bistoury, probe point.	1 Steel Director.
1 Hernia Bistoury.	1 Pair Coxeter's Forceps.
1 Tenotome.	2 Vulsellum Forceps.
4 Scalpels, assorted sizes.	1 Pair Eye Scissors, curved on the flat.
1 Tenaculum.	1 Pair Heavy Scissors, angular curved.
1 Pair Crampton's Artery Needles.	1 Lithomy Bistoury.
1 Double-pronged Hook.	1 Wire Ecraseur.
1 Beer's Cataract Knife.	1 Pair spring-catch Artery Forceps, fenestrated.
1 Desmarre's Scarifying Knife.	1 Pair Buck's Throat Forceps.
1 Straight-Eye Needle.	1 Pair Polypus Forceps.
1 Curved Eye Needle.	1 Pair Strabismus Forceps.
1 Gouge and Spud for removing foreign bodies from the Eye.	1 Buck's Hernia Director.
1 Folding Probang, with silver Bucket.	1 Capital Saw.
1 Long Bullet Probe, German silver.	1 Chain Saw, best.
1 Nelaton's Bullet Probe.	1 Trephine and Handle.
1 Pair German Silver Retractors.	1 Metacarpal Saw, movable back.
1 Double Silver Trachea Tube.	1 Finger Saw, narrow blade.
1 Curved Rongeur, with spring.	3 Lithotomy Staffs.
1 Ferguson's Bone-Holding Forceps, Lion Jaw.	3 Steel Bougies.
1 Pair Liston's Bone Forceps.	1 Syme's Staff.
1 Pair Sequestra or Toe-Nail Forceps.	1 Buck's Sponge-holder.
1 Small, straight Trocar and Canula.	1 German Silver Eye Speculum.
1 Ferguson's Bone-Holding Forceps, crowbill.	1 Edema Glottis Instrument.
1 Rectum Trocar and Canula, curved.	2 Coils silver suture Wire.
2 Gouges.	4 Coils Iron Wire.
2 Chisels.	3 Silver Probes.
1 Straight Trocar and Canula, large size.	6 Serrefins.
	Needles, Silk, Plastic Pins, Wax, etc.
Mahogany or Rosewood Case, brass bound, good French Lock, lined with silk velvet, neatly arranged, one patent leather cover, water proof	

\$135 00

Fig. 913.—Detmold's General Operating Set.

Detmold's General Operating Set.....	48 50
--------------------------------------	-------

Fig. 914.—Seymour's General Operating Set.

Seymour's General Operating Set.....	132 00
--------------------------------------	--------

Fig. 915.—Parker's Compact Operating Set.

Parker's Compact Operating Set.....	46 50
-------------------------------------	-------

Fig. 916.—Blackman's General Operating Set.

Blackman's General Operating Set.....	98 00
---------------------------------------	-------

Fig. 917.—Trephining Set.

Trephining Set.....	12 00
---------------------	-------

Contents of above cases furnished on application.

AMPUTATING AND GENERAL OPERATING CASES.**Fig. 918.—Post's General Operating Set.**

- | | |
|---|---|
| 1 Granger's Sponge Holder, gilt. | 1 Galt's Trephine. |
| 1 Pair Dressing Forceps. | 1 Bone Trephine. |
| 1 Pair Polypus Forceps. | 1 Trephine Handle. |
| 1 Pair Strabismus Forceps. | 1 Ebony Gorget. |
| 1 Pair Strabismus Scissors. | 1 Pair Coxeter's Forceps. |
| 1 Set Mott's Aneurism Needles. | 1 Pair Dressing Scissors. |
| 1 Pair Angular Scissors, heavy. | 1 Trephining Elevator. |
| 1 Kramer's Ear Speculum, best steel and German silver. | 1 Pair Spring catch Artery Forceps, plain |
| 1 Pair Liston's Bone Forceps, larger than usual. | 1 Rongeur. |
| 1 Female Catheter, silver. | 1 Double Trachea Tube, silver. |
| 1 Metacarpal Saw. | 1 Pair Eutropium Forceps. |
| 6 English Gum Elastic Catheters. | 1 Silver Catheter, No. 9. |
| 1 Medium-sized Trocar and Canula. | 1 Hey's Saw. |
| 1 Probang, with Silver Bucket | 1 Pair Mott's Retractors. |
| 1 Nelaton's Probe. | 1 Japanned Tongue Depressor. |
| 1 Pair Cilia Forceps. | 1 Rectum Trocar. |
| 1 Sharp-pointed Curved Bistoury, with Ferrule. | 1 Pair Sequestrum Forceps, toe nail. |
| 1 Finger Bistoury. | 1 Wire Eye Speculum. |
| 3 Scalpels, assorted sizes. | 1 Tiemann & Co.'s Bullet Forceps |
| 1 Tenaculum. | 1 Lachrymal Needle. |
| 1 Trephining Scalpel and Raspatory. | 1 Tenotome. |
| 1 Long Amputating Knife. | 1 Probe-pointed Bistoury. |
| 1 Blunt Hook. | 1 Straight and 1 Curved Eye Needle. |
| 2 Coils Silver Wire and Silk. | 1 Beer's Cataract Knife. |
| 1 Metal Bullet Probe. | 1 Medium-sized Amputating Knife. |
| 1 Pair Uvula Scissors, with Claws. | 2 Silver Probes. |
| Rosewood Case, brass-bound, lined with silk velvet, one patent-leather cover, waterproof..... | 1 Director. |
| | 1 Pair Vulsellum Forceps. |
| | 12 Suture Needles, Silk, Wax, Plastic Pins. |
| | |

\$109 00

Fig. 919.—Sharp & Smith's Operating Set.

- | | |
|---------------------------|--|
| 1 Capital Saw. | 1 Tourniquet. |
| 1 Catling, long. | 1 Ivory Exploring Needle. |
| 1 Liston's Medium Knife. | 1 Vulsellum Forceps. |
| 1 Elevator and Raspatory. | 1 Pair Curved Scissors. |
| 2 Scalpels. | 1 Pair Straight Scissors. |
| 1 Straight Bistoury. | 1 Galt's Trephine. |
| 1 Tenotome. | 1 Movable Back Saw. |
| 1 Probe Bistoury. | 1 Hey's Saw. |
| 1 Sharp-curved Bistoury. | 1 Liston's Bone Forceps. |
| 1 Tenaculum. | 1 Pair Spring-catch Artery Forceps. |
| 1 Aneurism Needle. | Needles, Silk, Plastic Pins, Wax, etc. |

Brass bound Rosewood Case.....\$33 75

Fig. 920.—Bone Exsecting Set.

- | | |
|---|--|
| 1 Chain Saw, best. | 1 Pair Mott's Retractors. |
| 2 Chisels, different sizes. | 3 Coils Silver Wire. |
| 2 Gouges, different sizes. | 1 Pair Bone Forceps, angular. |
| 1 Curved Rongeur or Gouge Forceps, with spring. | 1 Pair Ferguson's Lion Jaw Bone-holding Forceps. |
| 1 Pair Liston's Bone Forceps, large. | 1 Lead Mallet. |
| 1 Set Brainard's Bone Drills. | 1 Metacarpal and Interosseous Saw, narrow. |
| 1 Bone Trephine and Handle. | |

AMPUTATING AND GENERAL OPERATING CASES.

Fig. 920.—Bone Exsecting Set—Continued.

1 Elevator and Raspatory.	1 Pope's Antrum Drill.
1 Pair Sequestrum Forceps.	Needles, Silk, Plastic Pins, Wire, etc.
Mahogany Case, lined with oil-dyed velvet.....\$48 75	
Fig. 921 Wood's General Operating Set.....	\$52 00
" 922 Hamilton's " " "	75 00
" 923 Conant's Amputating and Minor Operating Case.....	40 00

MINOR OPERATING CASES.

Fig. 950 Hospital Minor Operating Set.....	\$56 00
" 951 Conant's " " "	26 25
" 952 Sharp & Smith's Minor Operating Set.....	No. 1 24 00
" 953 " " " " "	No. 2 15 00
" *954 " " " " "	No. 3 11 25
" 955 Otis' " " " " "	48 75
" 956 Erskine Mason's " " " " "	33 75
" 957 Frank Rockwell's " " " " "	45 00

Fig. 950.—Hospital Minor Operating Set.

2 Finger knives; 2 Straight probe pointed bistouries; 1 Straight hernia knife; 2 Curved sharp pointed bistouries; 2 Curved probe pointed bistouries; 1 Curved hernia knife; 1 Abscess knife; 1 Short, straight bistoury; 4 Tenotomes, various shapes; 1 Tenaculum; 1 Pair Sharp & Smith's needle forceps; 1 Pair Parker's retractors; 3 Serresfins, steel; 1 Straight tonsil knife; 1 Curved tonsil knife; 7 Scalpels, assorted sizes and shapes; 1 Green's double hook, plain; 1 Pair fenestrated artery forceps; 1 Pair Coxeter's artery forceps, small; 1 Pair strabismus forceps; 1 Pair Tiemann & Co.'s bullet forceps; 1 Bullet probe, Tiemann's; 1 Pair polypus forceps; 1 Pair Vulsellum forceps; 1 Pair straight, heavy scissors; 1 Pair scissors, curved on the flat; 1 Pair scissors, angular curved; 1 Trocar and canula; 1 German silver ear speculum; 1 Bellocq's canula, for epistaxis, silver; 1 Steel director; 12 yards annealed iron wire. Assorted needles, silk, silver wire, and plastic pins, all in neat rosewood case, brass bound and lined with oil-dyed velvet..... \$56 00

Fig. 951.—Conant's Minor Operating Case.

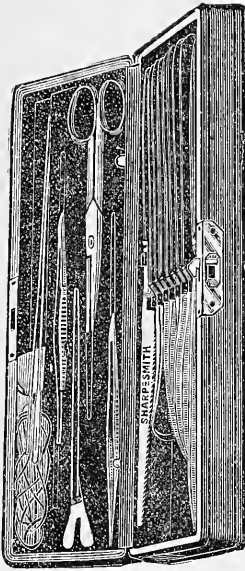
1 Pair Small, fine Bone Forceps; 1 Pair Van Buren's Scissors; 1 Chisel; 1 Combination Catheter; 1 Set Mott's Aneurism Needles; 1 G. S. Director; 1 Pair Silver Probes; 1 Pair Needle Forceps, slide catch; 1 Pair Parker's Retractors; 1 Scalpel; 1 Finger Knife; 2 Bistouries; 1 Hernia Knife; 1 Double Hook; 1 Amputating Knife and Saw, to screw into one handle; Needles and Silk. Put up in a mahogany, brass bound case, 8 inches long, 3½ inches wide, 1¾ inches deep, outside measurements.

Price..... \$26 00

Fig. 952.—Sharp & Smith's Minor Operating Case No. 1.

1 Double Hook.	1 Narrow Metacarpal Saw.
1 Curved Sharp-pointed Bistoury.	1 Pair Plain Artery Forceps.
1 Curved Probe-Pointed Bistoury.	1 Small Trocar.
1 Cooper's Hernia Knife.	1 Pair angular Scissors.
4 Scalpels, assorted.	1 Pair Slide-catch Artery Forceps.
1 Pair small Polypus Forceps.	6 Needles, Silk, Iron and Silver Wire.
1 Tenotome.	1 Steel Director.
1 Tenaculum.	2 Silver Probes.
1 Aneurism Needle.	

In morocco case, lined with oil-dyed velvet..... \$24 00



954

Fig. 953. Sharp & Smith's Minor Operating Case No. 2.

- | | |
|-------------------------|----------------------------|
| 1 Metacarpal Saw. | 1 Tenaculum. |
| 2 Scalpels. | 1 Bulldog Artery Forcep. |
| 1 Sharp Point Bistoury. | 1 Pair Scissors. |
| 1 Probe Point Bistoury. | 1 Director and Tongue Tie. |
| 1 Tenotome. | 1 Aneurism Needle. |
| 1 French Finger Knife. | 2 Long Silver Probes. |
| 1 Plain Artery Forcep. | |

Twelve needles, all in a neat morocco covered case,
very compact..... \$15 00

This is the same case that is contained in our general operating cases, and parties purchasing it from us may at any future time buy the balance of the operating set, thus completing the case without loss.

***Fig. 954. Sharp & Smith's Minor Operating Case No. 3.**

- | | |
|----------------------------|---------------------------|
| 2 Scalpels. | 1 G. S. Director. |
| 1 Straight Sharp Bistoury. | 1 Pair Silver Probes. |
| 1 Curved Sharp Bistoury. | 1 Pair Straight Scissors. |
| 1 Hernia Knife. | 1 Pair Thumb Forceps. |
| 1 Tenaculum. | Needles and Silk. |
| 1 Metacarpal Saw. | |

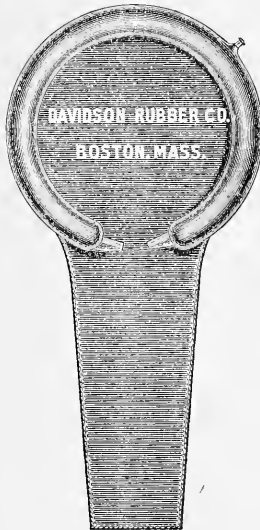
Put up in a fine morocco case..... \$11 25

FIG.

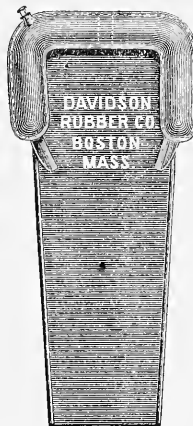
- | | |
|--|---------|
| 955. Otis' Minor Operating Case..... | \$48 75 |
| 956. Dr. Erskine Mason's Minor Operating Case..... | 33 75 |
| 957. Dr. Frank Rockwell's " " " | 45 00 |

Contents of cases furnished on application.

- | | |
|--|------|
| *958. Diameter of Cushion 20 inches..... | 4 00 |
| *959. " " 24 " | 5 00 |
| *960. " " 14 " | 4 00 |



958-959



960

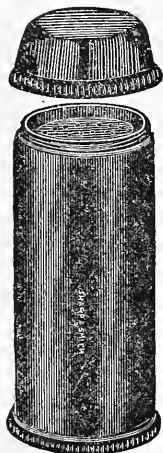
These Cushions are made with an inflatable rim at the top, to prevent the escape of the fluid upon the bedding or clothing, and by the opening and apron this fluid is conducted down into a bucket, placed to receive the same.

The rubber, unlike other Cushions on the market, has a velvety softness that makes them very comfortable to the patient; the color is a clear tan, and they are made with the greatest care to give them durability. They are being largely used in obstetrical, perineal, cervical and general surgical operations, especially where cleanliness and convenience are desired.

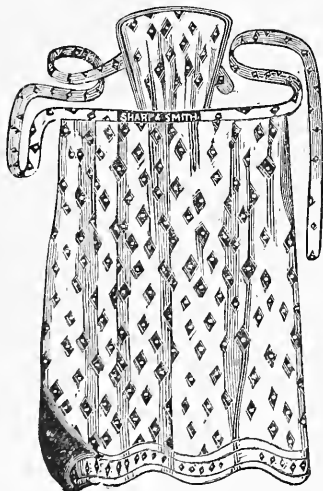
AMPUTATING, GENERAL, AND MINOR OPERATING INSTRUMENTS.

ANTISEPTIC GOODS.—See Index.

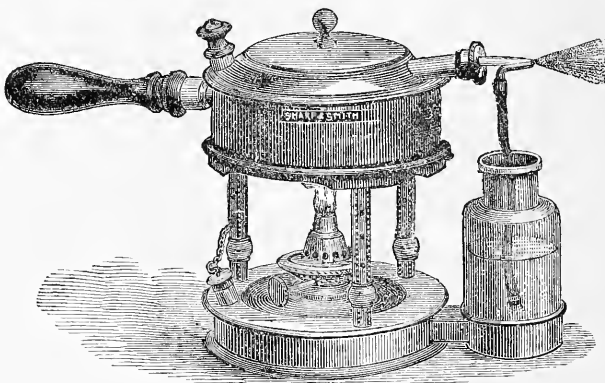
FIG.		
* { 1000	Atomizers—Wier's Antiseptic, small	\$12 00
* { 1001	" " " large	18 75
* 1002	" Hank's " 	12 00
* 1003	Aprons—Rubber, for operators' use.....	2 00
	Bandages, all kinds, see index.	
1003-A	Small Iodoform Duster.....	\$0 50
* 1003-B	Medium " " 	75
1003-C	Large " " 	1 00



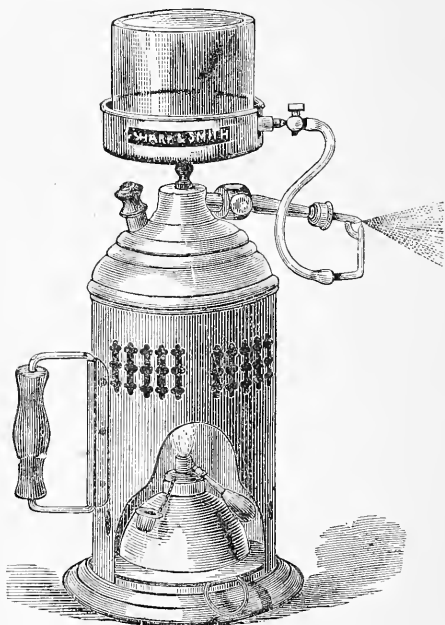
1003-B



1003



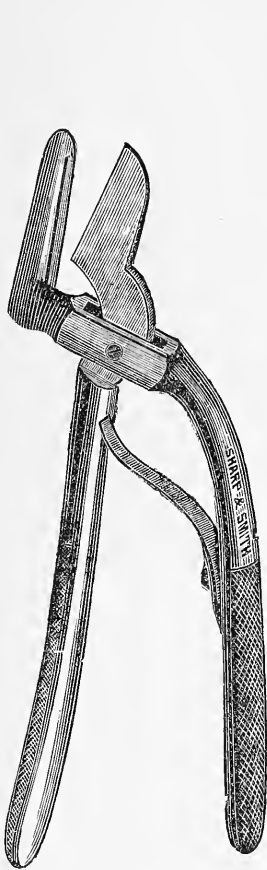
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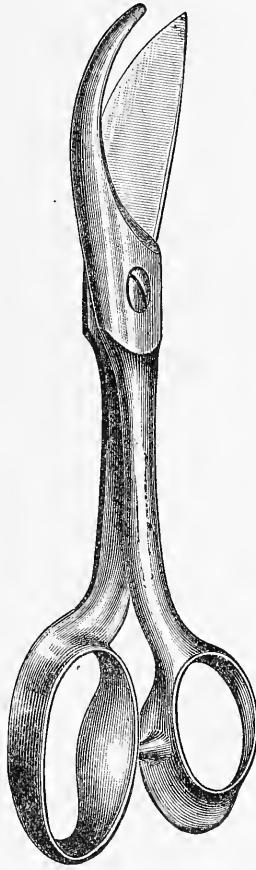
1002

Instruments designated by a * are illustrated.

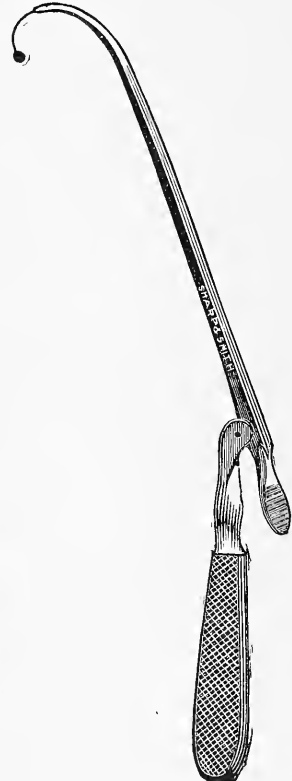
AMPUTATING, GENERAL AND MINOR OPERATING INSTRUMENTS.



1009



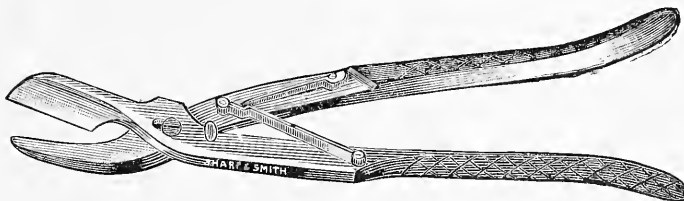
1013



1015



1016



1010

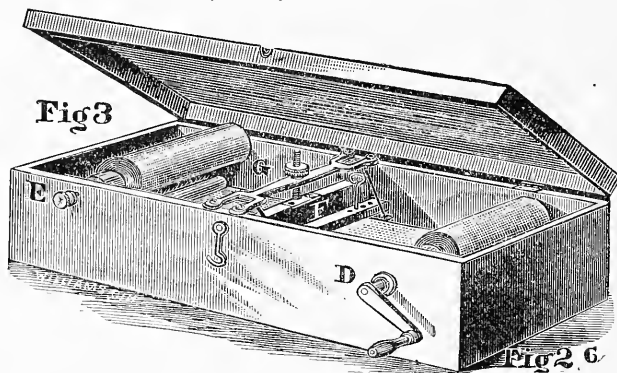
AMPUTATING, GENERAL AND MINOR OPERATING INSTRUMENTS.

FIG.			
1004.	Bandage Rollers, plain.....		\$1 00
1005.	" " Crocker's.....		4 50
1006.	" " Plaster Paris, Greene's.....		4 00
*1007.	" " " " Judkin's.....		6 00
*1007-A.	" Clamp, Esmarch's.....		1 25
1007-B.	" " Langenbeck's.....		1 25
1008.	" Shears, Braun's.....		7 50
*1009.	" " Sayres'.....		5 00
1010.	" " Szymanowsky's.....		6 75
1011.	" " Esmarch's.....		4 50
*1012.	" " Wackerhagen's.....		4 50
*1013.	" " Wright's.....		5 50
1014.	" " Henry's.....		3 50

All Instruments designated by a * are illustrated.

A New Apparatus for Preparing Plaster-of-Paris Bandages.

By WM. JUDKINS, M. D.

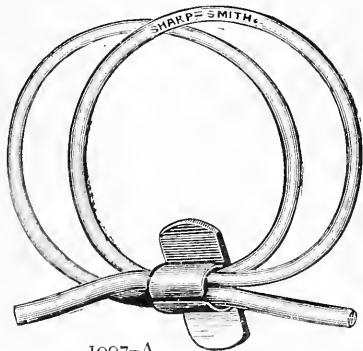


1007

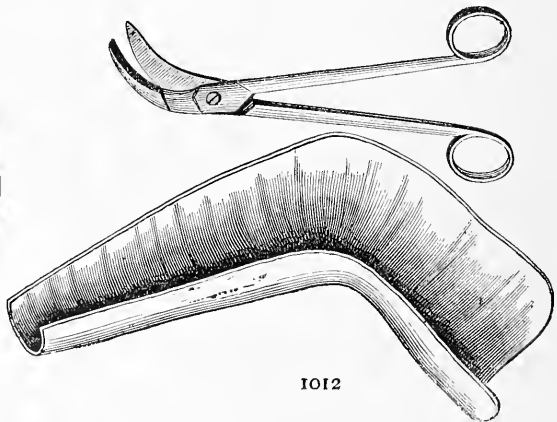
Directions for Use.

Run the end of Bandage on rod E under the bar near bottom of box through gate of regulator F, and fasten on rod D. Place the plaster in the box at G, and turning the handle, the Bandage in passing through the gate has all superfluous plaster scraped off and its meshes are thoroughly impregnated with a coat of plaster. By means of a thumb screw on regulator F, the Bandage may be charged of any *desired thickness*.

After Bandage is all wound on Crank D give same two or three *reverse turns* and withdraw. The Bandage, now ready for use, is wrapped in paper and put away in a *tin box* until wanted.



1007-A



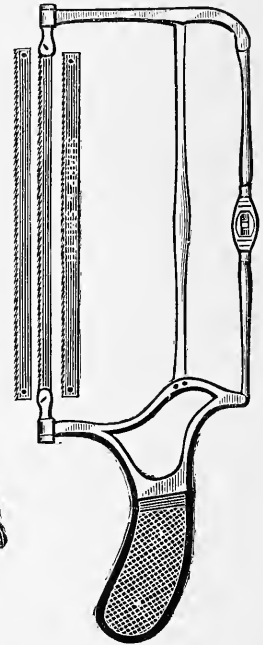
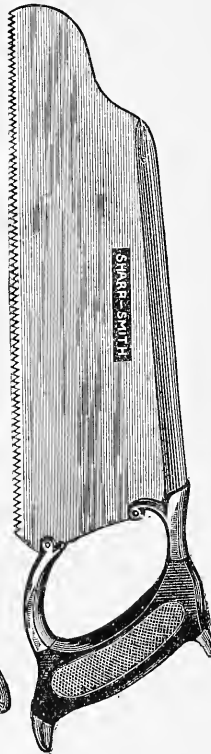
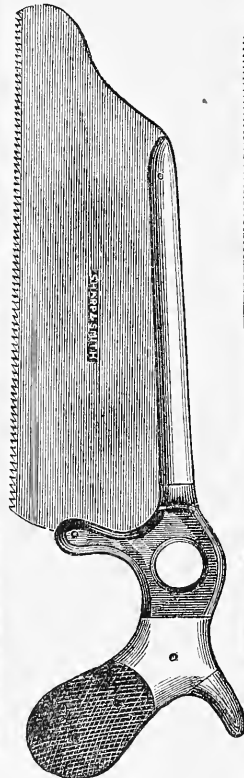
1012

SAWS.

1042 Saws—Capital—Sharp & Smith's Aseptic..... \$16 00

This saw is thoroughly Aseptic, has two blades which can be put at any angle for operating. The saw is made exclusively of metal and nickel plated, and is one of the most useful instruments yet offered to the profession.

*1043	Saws—Capital—Satterlee's.....	\$ 3 50
*1044	" " Parker's.....	3 50
*1045	" " Butcher's.....	12 00
*1046	" " Bow.....	5 00
1047	" " Movable Back.....	3 50
1048	" " Detmold's.....	3 75
1049	" " Pfarre's.....	3 75



1016-A

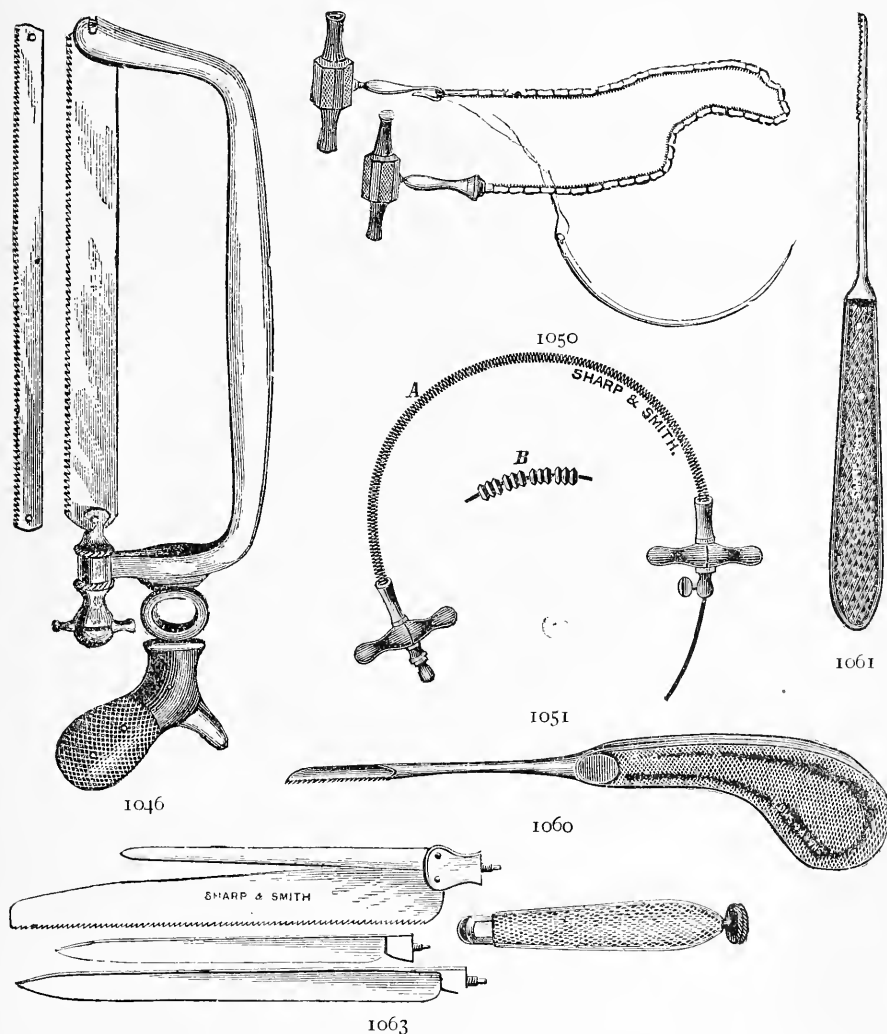
1028

1024

All instruments designated by a * are illustrated.

SAWS.

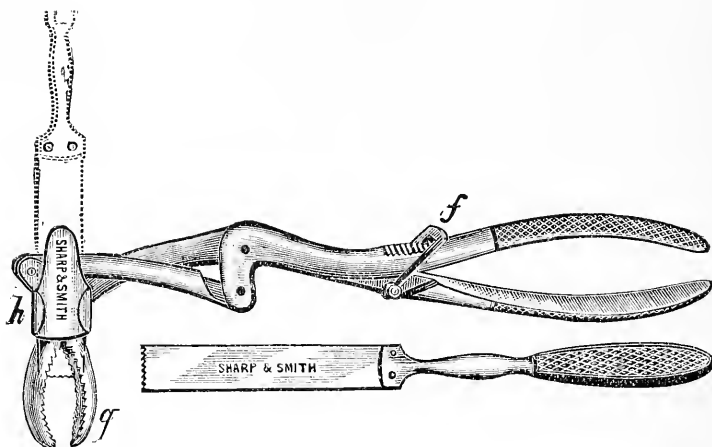
FIG.			
*1050	Saws—Chain, best.....	\$	7 50
*1051	“ T. & Co.'s beaded.....		4 50
1052	“ Conant's and Knife, 1 blade saw.....		5 50
*1053	“ “ “ 2 “ “		7 00
*1054	“ Hey's Skull.....		1 30
1055	“ Goodwillie's Oral.....	\$2 50 to	3 75
1056	“ Graefe's Circular.....		15 00
*1057	“ Wyeth's Exsecting.....		15 00
1058	“ Szymanowsky's Exsecting		15 00
1059	“ Adam's Interosseous, large.....		3 20
*1060	“ “ “ small.....		2 40
*1061	“ Lente's “		1 00



All instruments designated by a * are illustrated.

SAWS.

Dr. Jno. Wyeth's New Instrument for Exsections.



1057

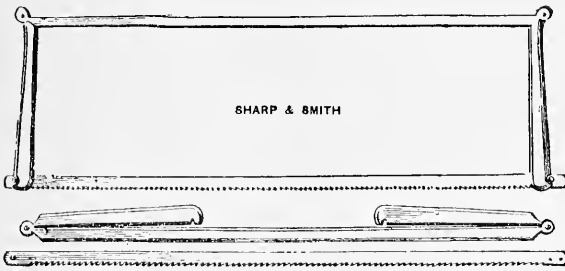
The above instrument has been used successfully in exsections of the humerus and shoulder joint, the elbow joint, the hip joint, cutting through both trochanters with perfect facility, the radius, the metatarsus, and the acromion process and spine of the scapula. It can also be used in exsections of small bones closely related to each other, as the metacarpal bones. The handles work with a double-jointed motion, and have a fixation clamp, *f*, like the Russian needle holder. By opening or closing the handles, the jaws, *g*, are separated or closed. The action of the rotating shield, *h*, and the saw, *l*, are the same.

FIG.

*1062	Saws—Schrady's—Subcutaneous Saw and Knife.....	\$ 5 25
1063	" Hunter's Plastic Saw.....	2 00
*1064	" Lewis folding.....	1 85
1065	" Tiemann & Co.'s Circular.....	9 00
*1066	" Metacarpal, plain handle.....	1 00
1067	" " Ivory "	1 50
*1068	" " Movable Back.....	\$1 75 to 3 50
1069	" Maxilla R. & L.....	each. 1 30
*1070	" Post's Chain Saw Carrier.....	4 00
*1071	" Buck's " " "	2 00

All instruments designated by a * are illustrated.

SAWS.



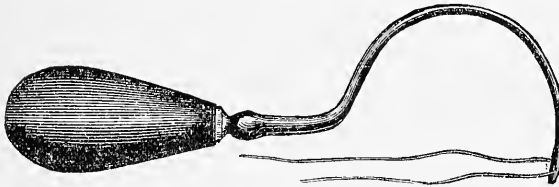
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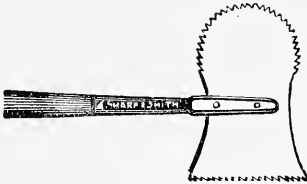
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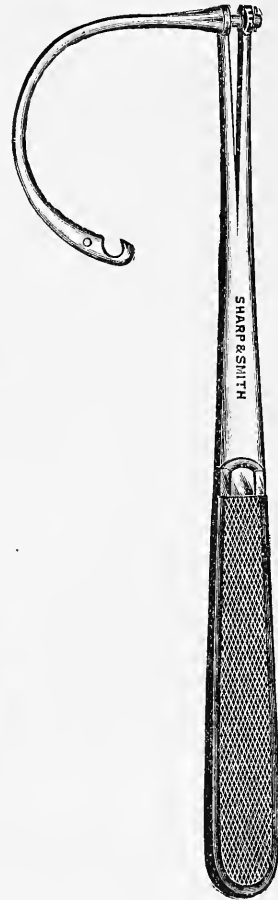
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1071



1054



1070

Fig 1.

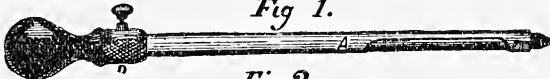
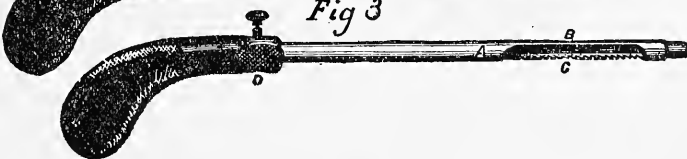


Fig 2.

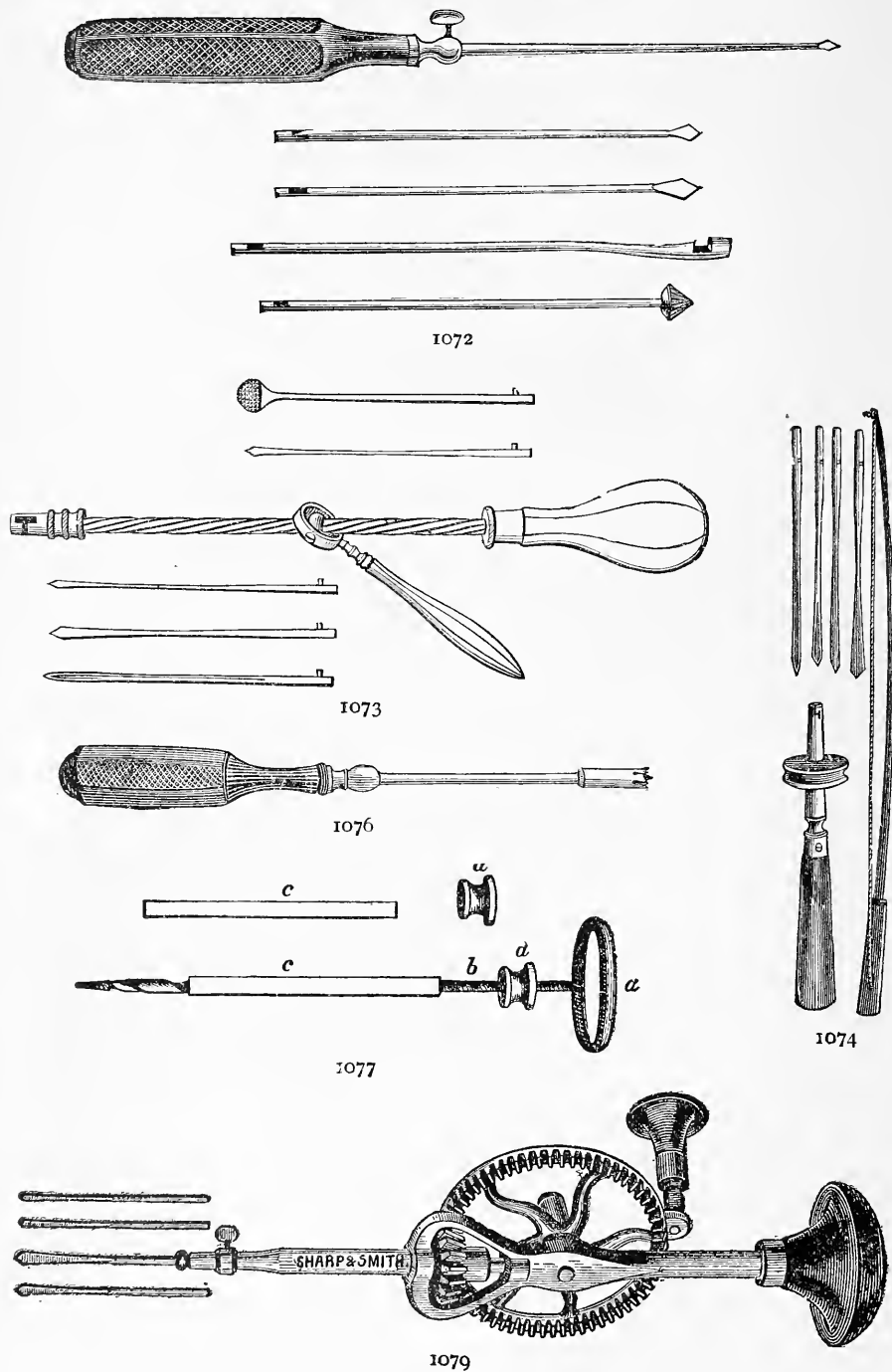


Fig 3



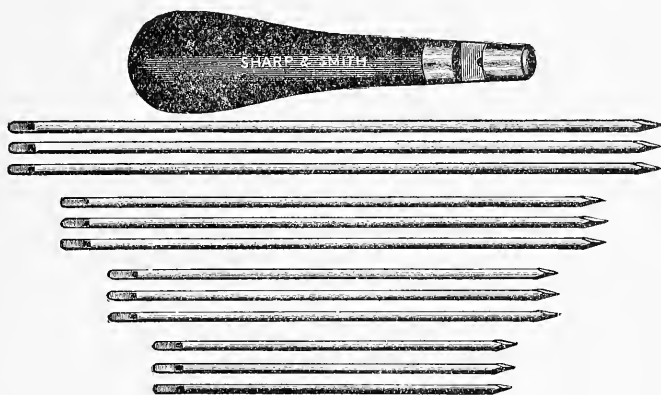
1062

DRILLS.



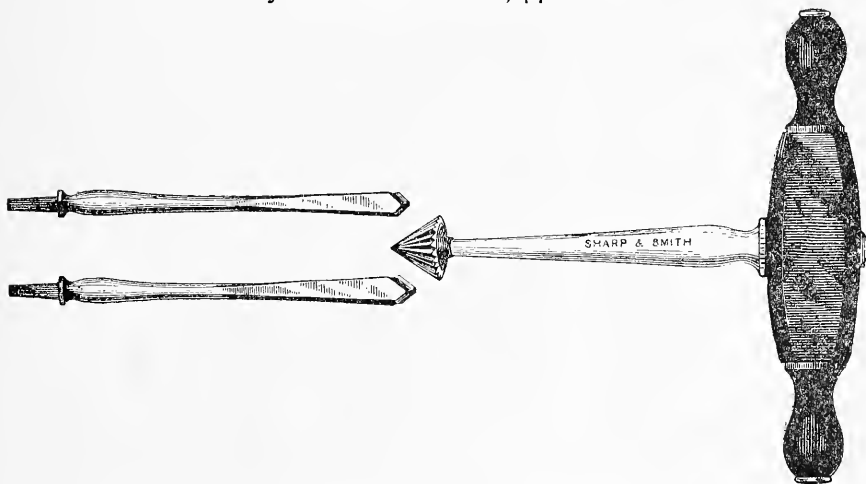
DRILLS.

FIG.			
*1072	Drills—Brainard's, set 5 and handle.....	set	\$ 2 65
*1073	" Hamilton's.....		5 25
*1074	" Howard's.....		5 25
1075	" Gunn's.....		2 50
*1076	" Pope's Antrum.....		2 60
*1077	" Gaillard's, for ununited fractures.....		2 50
*1078	" Wyeth's set.....		4 00
*1079	" Tiemann's Drill Stock.....		5 25
*1080	" Buck's Drills for the mastoid process.....		3 75



1078

Wyeth's Set Bone Drills, \$4.00 Net.

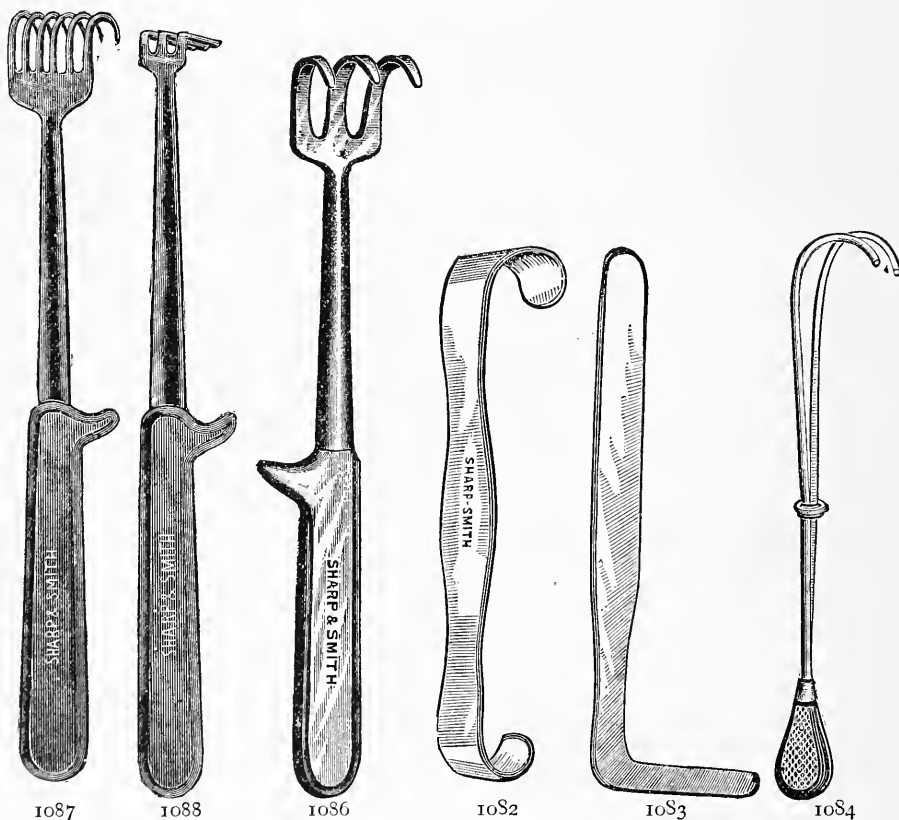


1080

All instruments designated by a * are illustrated.

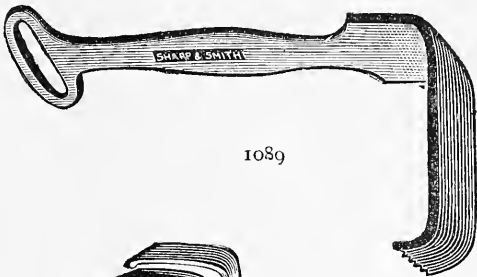
RETRACTORS AND HOOKS.

FIG			
1081	Retractors—Volkman's	each.	\$ 2 25
*1082	“ Parker's.....	pair.	1 10
*1083	“ Mott's	“	1 10
*1084	“ Blackman's.....	“	2 25
1085	“ Prince's.....	“	2 60
*1086	“ Bilroth's R. and L., 3 prong blunt.....	“	4 50
*1087	“ “ “ 6 “ sharp.....	“	4 50
*1088	“ “ “ 3 “ blunt, angle on flat “	“	4 50
*1089	“ Gerster's.....	“	3 70
1090	“ “ Modified by Dr. M. Spicker, with longer handle and longer blade....	per pair.	3 70
*1091	“ Collins' Fenestrated.....	“	1 85
*1092	“ “ without Fenestra.....	“	1 85
*1093	Greene's Double Hook.....		1 85
*1094	Langenbeck's Double Hook.....		3 00
	“ Levator and Hook.....		1 30
1095	Vulsellum Hooks, 2 prong.....		1 10
1096	“ “ 3 “		1 30
*1097	Tenaculum Forceps, Disarticulating.....		2 25
1098	Prince's Tenaculum Forceps.....		4 50
*1099	Master's “ “ Double.....		2 25



All instruments designated by a * are illustrated.

RETRACTORS AND HOOKS.



1089



1091



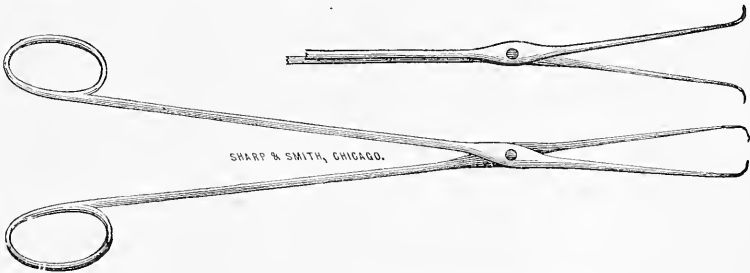
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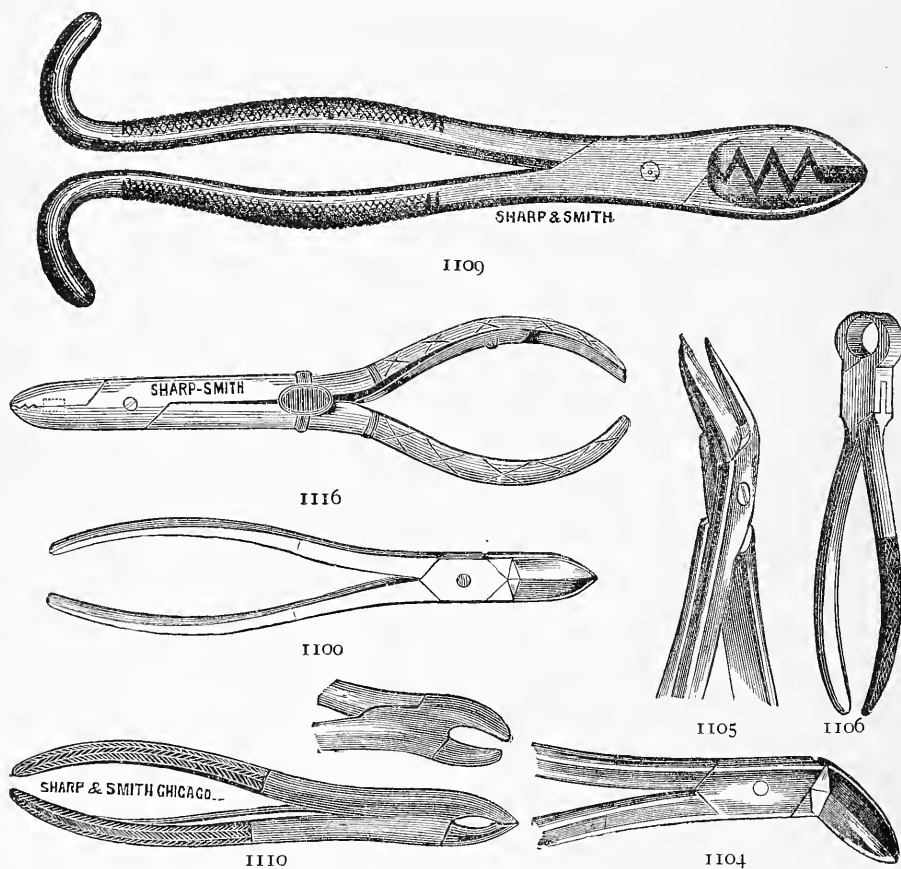
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1099

BONE INSTRUMENTS.

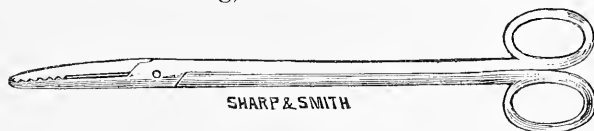
FIG.					
*1100	Forceps—Bone	Cutting—Liston's,	plain.....	\$	1 85
1101	"	"	" " spring.....		2 25
1102	"	"	" " large.....		2 50
1103	"	"	" " " with spring.....		3 00
*1104	"	"	" " angular.....		2 25
*1105	"	"	" " curved or flat.....		2 25
*1106	"	"	Satterlee's.....		2 00
1107	"	"	" " curved.....		3 25
1108	"	"	Isaacs' Bayonet shape....	\$3 00 to	5 00
*1109	"	"	Hamilton's Serrated.....		9 00
*1110	"	Rongeur, straight.....			2 50
1111	"	" half curved.....			2 50
1112	"	" full ".....			2 50
1113	"	" Little's, for pocket.....			3 00
1114	"	" Hoffman's Gouge.....			3 00
1115	"	" and Bone Holder, Darby's.....			3 00
Wyeth's Exsecting Forceps and Saw, see page 294.					
*1116	"	Needle Cutting, Stimson's.....			2 75
1117	"	" " and Needle Holder, Little's.....			4 00



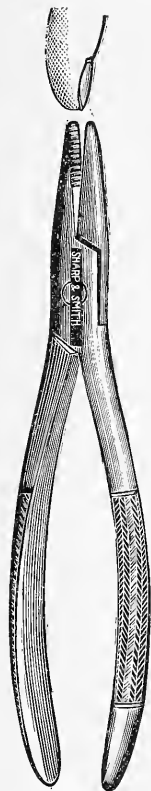
All instruments designated by a * are illustrated.

BONE INSTRUMENTS.

FIG.			
*1118	Forceps, Toe Nail, Post's.....	\$	2 00
1119	" Trephining and Sequestrum, Van Buren's.....		2 00
*1120	" Sequestrum, Markoe's curved.....		2 25
*1121	" " Hamilton's.....		1 85
1122	" " Ferguson's, with spring.....		2 00
*1123	" " Van Buren's.....		2 25
1124	" " Poor's angular.....		2 25
*1125	" " Duck Bill.....		1 85
1126	" " Gross' plain.....		2 00
1127	" " with hinged spring.....		3 25
*1128	Bone Holding—Ferguson's Lion Jaw.....		2 25
1129	" " --Darby's.....		3 00
1130	" " Gnawing, curved and straight, each.....		2 50
*1131	" " Farabeuf's (Osteopher).....		5 25
*1132	" " Holding Hamilton's, (Osteopher).....		3 00
1133	" " Gnawing, curved and straight, each.....		2 50



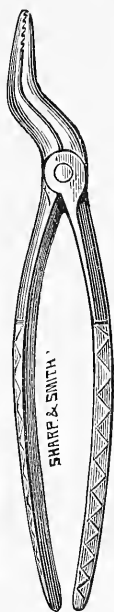
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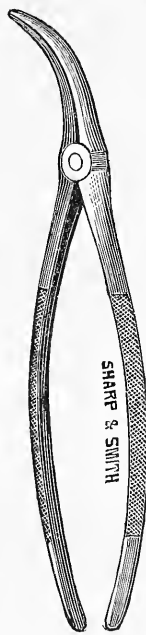
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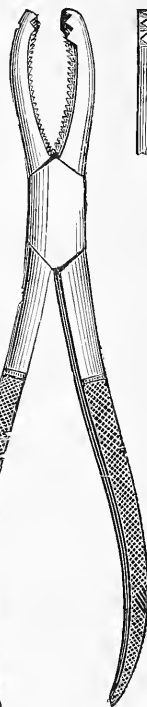
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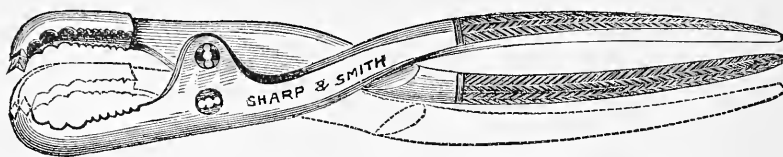


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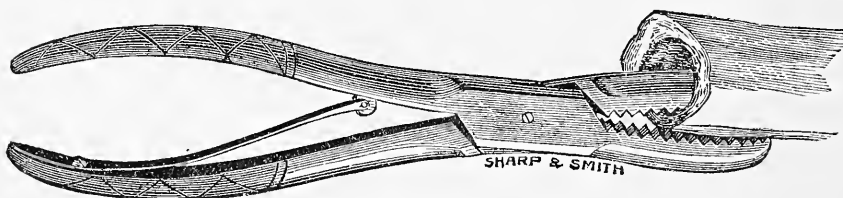


All instruments designated by a * are illustrated.

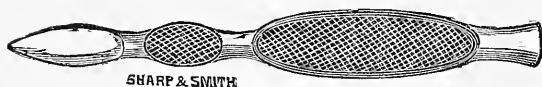
BONE INSTRUMENTS.



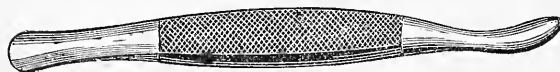
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1134



SHARP & SMITH

1135



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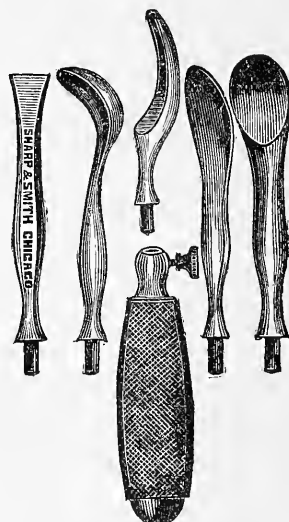
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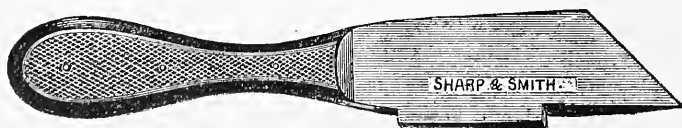
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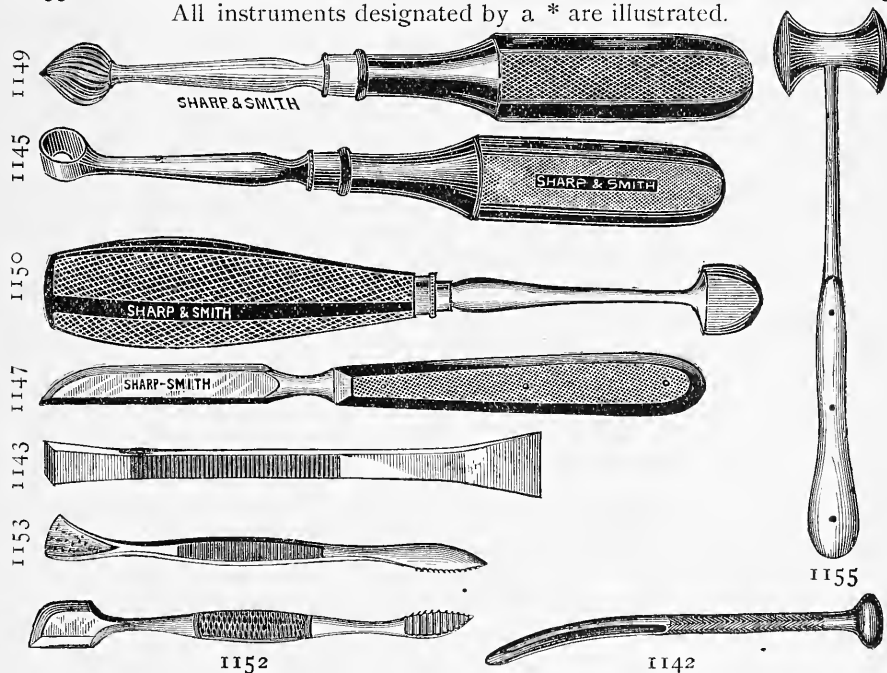


1139

BONE INSTRUMENTS.

FIG.		
*1134	Sands' Periosteotome.....	\$ 1 75
*1135	Sayre's "	1 50
1136	Poore's "	1 50
*1137	Goodwillie's Periosteotome, Levator, half curved.....	1 50
*1138	" " " full "	1 50
*1139	Linhardt's Knife Chisel	1 50
1140	Darby's set of Chisels and Gouges.....	5 00
*1141	Szymanowsky's Chisel.....	2 00
1142	Hand Chisel, curved (like Fig. 1142).....	1 25
1143	Ebony Handle, curved.....	1 50
*1144	Plain " "	85
1145	" " " large.....	1 00
*1146	Macewen's curved, 3 sizes, each	2 25
*1147	Szymanowsky's Gouge.....	2 00
*1142	Hand Gouge, curved.....	1 25
*1143	Plain "	85
1144	" " large.....	1 00
*1145	Hebra's Bone Scraper.....	1 85
1146	Charrière's Bone Scraper.....	1 75
*1147	Fine Ebony Handle Bone Scraper.....	1 50
1148	" Steel pointed " "	1 85
*1149	Marshall's Osteotrite, Olive Head.....	1 85
*1150	" " Round Head.....	1 85
1151	Gowan's Osteotome.....	15 75
*1152	Elevator and Raspatory.....	1 00
*1153	" Trephining.....	75
1154	Goodwillie's Elevator for roof of mouth, straight or curved, each	1 50
*1155	Lead Mallet.....	1 85

All instruments designated by a * are illustrated.



MACEWEN'S CHISELS AND OSTEOTOMES.

Dr. Wm. Macewen ("Osteotomy") says: The instruments used by me are of two different kinds, the chisel and the osteotome. The former being of the same form as the carpenters'—though different in temper, the latter being sharpened like an attenuated double inclined plane.

The chisel is used for paring, shaving and cutting out of bone, such as a cuneiform portion of the tibia in anterior curvature.

The osteotome is used only for making simple incisions or wedge-shaped openings without removal of bone.

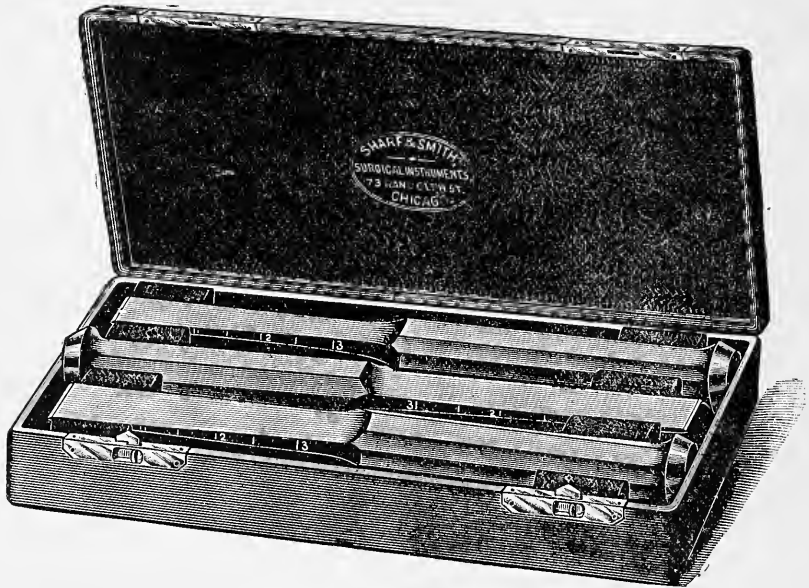


Fig. 1146. Macewen's Chisels.

The blade of the *chisel* has two parallel sides extending as far as the cutting edge. The cutting surface has one side straight, the other beveled. It ought not to be too thick, otherwise the bone will splinter. For most purposes an eighth of an inch at the base of the bevel is suitable. The breadth of the instrument varies according to the size of the bone. Half an inch broad is found very suitable in the majority of cases; but for narrow fibulæ a quarter of an inch is better. The breadth ought always to be less than that of the bone to be divided, otherwise the soft tissues on either side would be cut. Though the form of the instrument is similar to many employed by the carpenter, yet the temper and quality are quite different. A chisel tempered so as to cut wood, such as a carpenter's, would not be suitable to cut bone. On the other hand, the instrument employed by the iron cutter (dresser) would be equally faulty in thickness and temper. The bone would be apt to turn the edge of the former, while the latter would be apt to splinter it. The nearest approach of the requisite temper will be found in the tools of the hard wood or ivory turner; but it is best to get the chisel tempered to suit bone, and its quality may be easily tested on the thighbone of an ox. The osseous surface left by a sharp chisel ought to be quite smooth. This instrument is used for cutting a wedge and removing it out of the bone. For the purpose of making a simple osteotomy, or in order to have a wedge-shaped opening in the bone, without removal of any osseous substance, an *osteotome* is employed.

The Surgical Needle of Dr. Hagedorn, of Magdeburg.

The curved surgical needles at present in general use have a stem, the section of which forms either a section or an oval. The needle, at the inner side of its curve, is flattened to a broad double edge, terminating in a point. The edge is transverse to the curve of the needle.

A puncture made with such a needle is parallel with the direction of the wound, as shown in cut, *a, a*. On tying the suture the stitch-wound forms a gap, as shown, *b, b*, which frequently causes small fistulas, and will not always heal by first intention.

In the Hagedorn needle the section of the stem forms an oblong parallelogram. It is of equal length and thickness throughout its entire length from eye to point, and is curved in its axis, with its short cutting edge on its convex side near the point. The length of the cutting edge is about twice or thrice the width of the needle. The needle for intestinal sutures, however, makes an exception, its point being round.

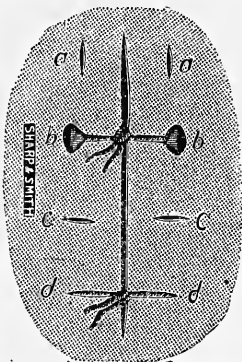
The Advantages Claimed by this New Kind of Needle are :

1. Being curved on the edge, they are more resistant, the point following the intended direction of puncture without deviation.

2. The eye can be made larger and tapering at the terminal end, so that even a stout double thread will pass through the puncture without difficulty.

3. Owing to its equal thickness the needle can be firmly and safely grasped at any point, whereby its direction will be greatly facilitated.

The Hagedorn Needles are put up in packages of one dozen of any one size, either straight, semi-curved or full-curved. Price per package, \$1.25.

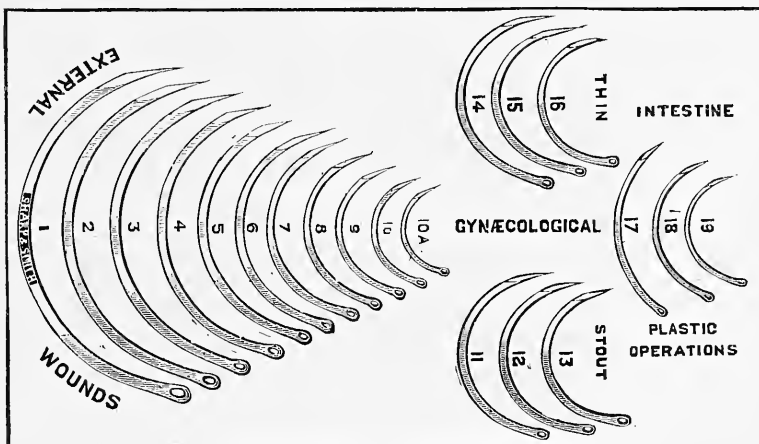


4. The cutting edge being on the convex side, cannot be blunted by the needle holder.

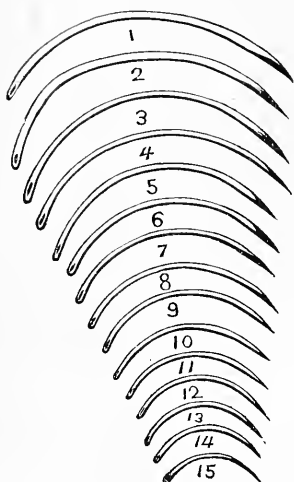
5. The incision made by the needle is in a right angle to the edge of the wound (see *c, c*). The two edges of the stitch wound, on tying the suture, are drawn into close apposition, whereby their union is favored (see *d, d*).

6. The flat needles cause less injury, especially in sutures of nerves and tendons.

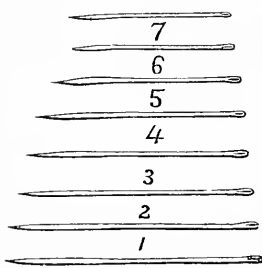
Sample Card Containing 20 Different Curved Needles.



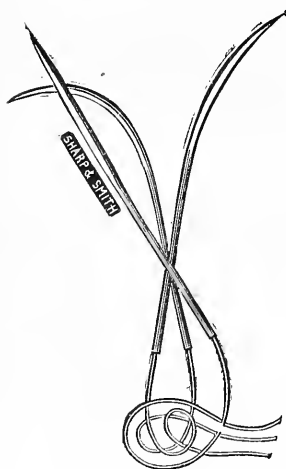
NEEDLES, Etc.



1166



1165



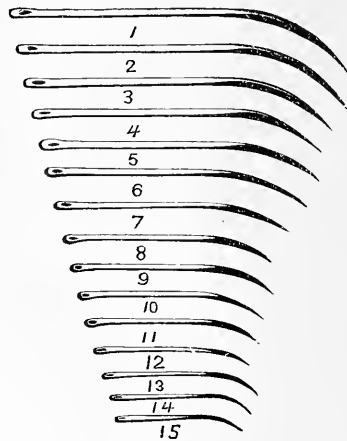
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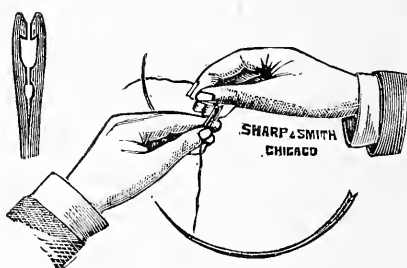
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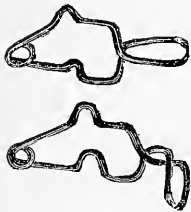
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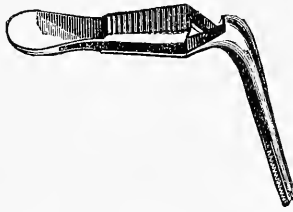
1164

NEEDLES, PINS, Etc.

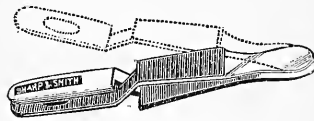
FIG.			
1156	Buck's Pin Carrier.....	\$	1 50
1157	Hare-lip Pins.....	per doz.	15
1158	" " Silver Canula.....	each	35
1159	Plastic " lance point.....	"	20
1160	Acupressure Pins, lance point.....	per doz.	50
*1161	Buck's " 1 to 2 inch.....	"	05
*1162	" " 2 1/2 ".....	"	10
*1163	" " 3 ".....	"	15
*1164	Hair-lip Needles.....	"	1 25
*1165	Needles—Ordinary Surgeons, Straight.....	"	60
*1166	" Curved.....	"	60
*1167	" Half curved.....	"	60
*1168	" Hagedorn's.....	"	1 25
*1169	" Self Threading.....	"	1 25
*1170	" For Mouth.....	"	1 20
1171	" For Silver Wire.....	each.	10
*1172	" In which Silver Wire can be screwed.....	"	35
1173	" Acupressure, Simpson's.....	"	20
*1174	" " with Glass Heads.....	"	10
1175	" Acupuncture " " ".....	"	10
Ligatures all kinds, see index.			
*1176	Langenbeck's Serresfins, steel.....		50
1177	" " " curved.....		75
*1178	" " can be taken apart to be cleaned.....	1	15
*1179	Serresfin's Silver Wire, straight.....		20
*1180	" " curved.....		20
*1181	Hoff's, set with handle, used to approximate the edges of wounds while passing sutures.....	4	25
1182	Tucker's Wire Cutter.....	4	00
*1183	Milne's Compressor.....	1	10



1179-1180



1183



1178



1181



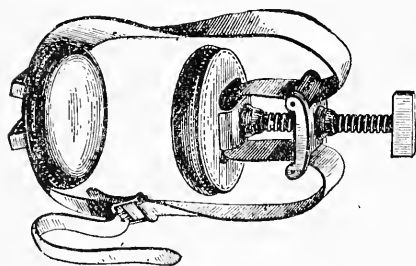
1182



1176

TOURNIQUETS, TREPHINES, Etc.

FIG.		
*1184	Galt's Trephine, Conical.....	\$ 3 00
1185	" " Cylindrical.....	3 00
1186	Crown Trephine.....	3 25
1187	Guarded ".....	4 50
*1188	Trephine Handle, Horn.....	60
1189	" Brush.....	15
1190	" Braces.....	11 00
1191	" Necrosis.....	2 75
1192	Tirefond or bone screw.....	1 85
1193	Trepan for the hand.....	1 85
*1194	Esmarch's Tourniquet, complete, with 3 yards web.....	2 60
1195	" " " Chain, only.....	3 15
1196	" " " Chain and strap.....	50
1197	" " " Chain and strap.....	1 25
1198	Tiemann's ".....	1 50
*1199	Pettit's Spiral ".....	1 50
1200	Cushing's Field ".....	50
1201	American ".....	75
1202	Mott's Spiral ".....	1 50
1203	May's ".....	11 00
1204	Gross' ".....	9 00
1205	Prussian ".....	60
*1206	Charriere's ".....	1 85
1207	Skey's ".....	18 00



1206



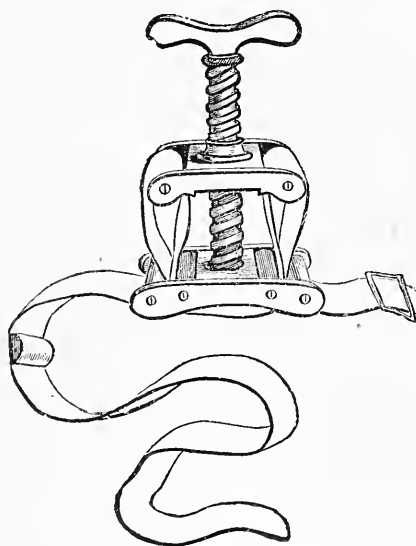
SHARP & SMITH, CHI.

1188

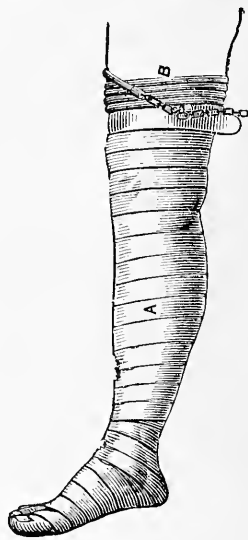


SHARP & SMITH, CHI.

1184



1199



1194

All instruments designated by a * are illustrated.

ETHER INHALERS.

FIG.		
1214	Matter's Ether Inhalers.....	\$10 00
1215	Huel's " "	7 50
1216	Adams' " "	5 00
1217	Squibbs' " "	1 75
1218	Spier's George, Ether Inhaler.....	2 75
1219	Morton's " "	3 75
1220	Junker's " "	9 50
1221	Chisholm's " "	for pocket. 1 90
1222	Cheatham's " "	2 75
*1223	Noyes' " "	6 00
*1224	Young's Combined Anæsthetic Can and Inhaler (Chloroform or Ether).....	7 00

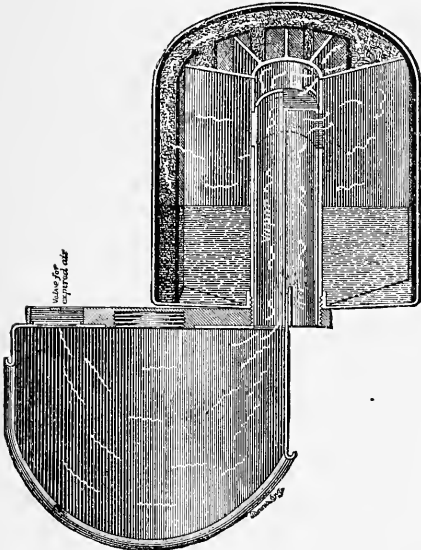
This instrument is small enough to carry in the pocket, and may be kept constantly filled ready for use. It fits perfectly any form of face.

*1225	Esmarch's Chloroform Inhaler with Mask.....	2 50
*1226	Esmarch's Chloroform Dropper.....	1 50
1227	Lente's " Inhaler.....	4 50

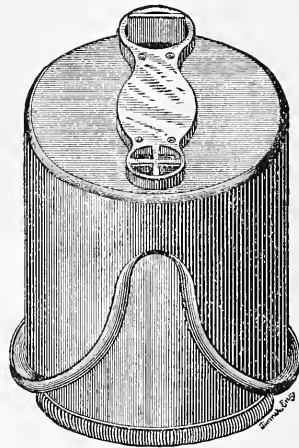
For other kinds of Inhalers, see index.

Young's Combined Anæsthetic Can and Inhaler.
(Chloroform or Ether.)

SAFE, EFFICIENT, ECONOMICAL, CONVENIENT AND CLEANLY. IS SMALL ENOUGH TO CARRY IN THE POCKET, AND MAY BE KEPT CONSTANTLY FILLED READY FOR USE. FITS PERFECTLY ANY FORM OF FACE. LIQUID CANNOT RUN OUT WHILE USING IN ANY POSITION.



1224



1224

The instrument may be taken apart by unscrewing the head from the can, the packing here being a soft string, wound around a number of times underneath the head.

This inhaler is especially adapted for obstetric practice, the patient being recommended to hold it herself; she drops it when she reaches the stage of muscular relaxation.

A FOLDING ALLIS' ETHER INHALER.

By GEORGE R. FOWLER, M. D., Brooklyn, N. Y.

Extract from "The Medical Record," July 2d, 1887.

Although many surgeons still prefer the ordinary folded napkin or improvised cone method of administering ether, yet there can be no doubt as to the advantages to be derived from the use of a specially devised apparatus like the Allis' inhaler. It is open to the objection, though to a less extent than other instruments of its class, of being somewhat cumbersome when carried about, and of occupying, therefore, considerable space in the operating satchel. I have therefore endeavored to overcome this objectionable feature by slightly altering the shape of the inhaler in such a manner as to allow of its being folded flatwise. The

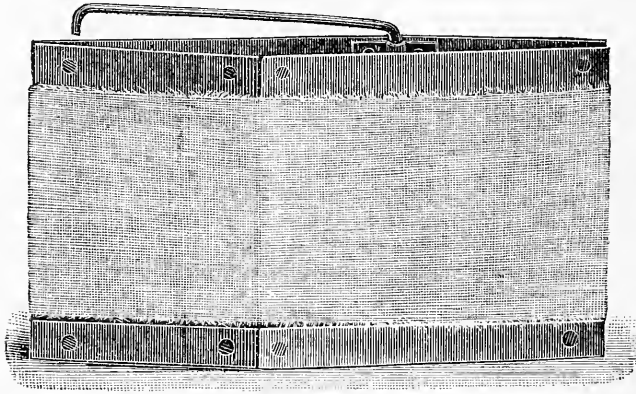


Fig. 1210. No. 1.

accompanying cuts will show how this is accomplished. Fig. 1 represents the inhaler folded ready for placing in the pocket or satchel, in which shape it occupies about as much room in the pocket or satchel as an ordinary visiting list. By a very simple movement, provided for by bringing together the corners of the metal sides, the two long sides are made to separate from each other, until

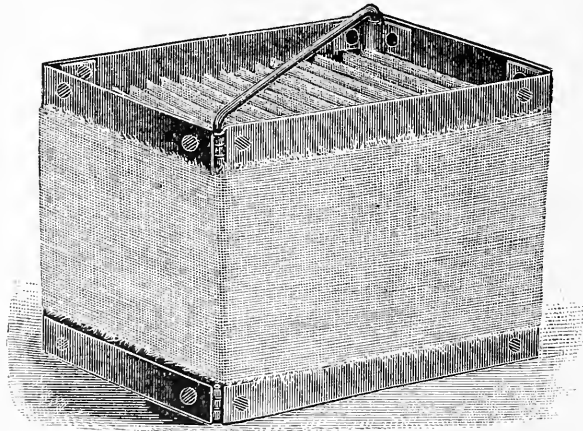
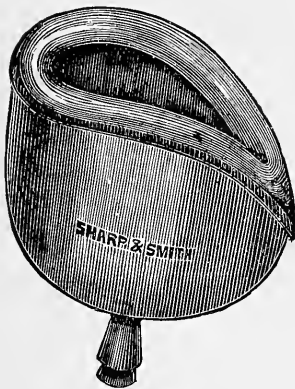


Fig. 1210. No. 2.

the shape shown by Fig. 2 is formed, in which position it is securely held by a little bar which swings over from one corner to the one diagonally opposite, and fastened, by its bent extremity, into a socket provided for the purpose.

ETHER INHALERS.

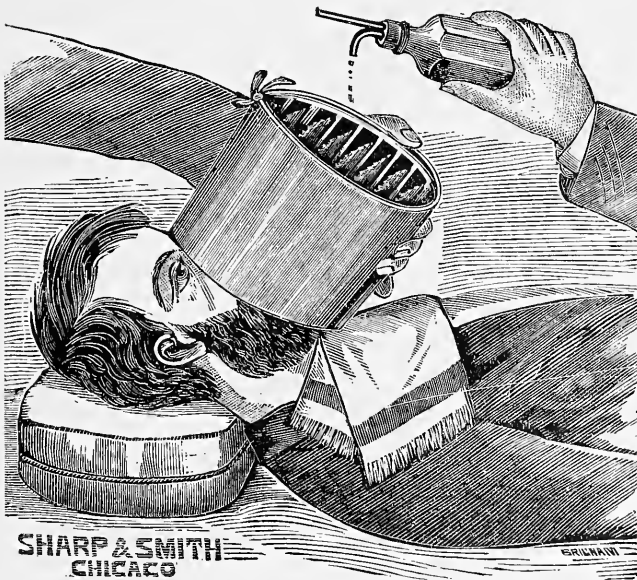
FIG.		
*1208	Allis Ether Inhaler, Rubber Cover.....	\$3 00
1209	“ “ “ Leather “	3 00
*1210	Fowler's Modification of Allis' Ether Inhaler.....	4 00
1211	Waterford's Ether Inhaler.....	2 50
*1212	Lente's Ether Inhaler.....	2 60
1213	Hutchinson's Ether Inhaler.....	3 50



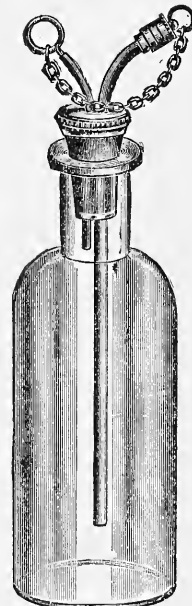
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1225



1208

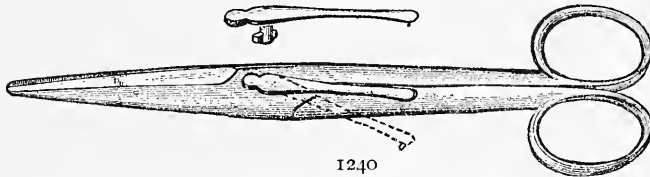
SHARP & SMITH
1225

A NEW ANTISEPTIC SCISSORS AND FORCEPS LOCK.

By CHARLES NOAH DIXON JONES, M. D., Surgeon to the Woman's Hospital, Brooklyn.

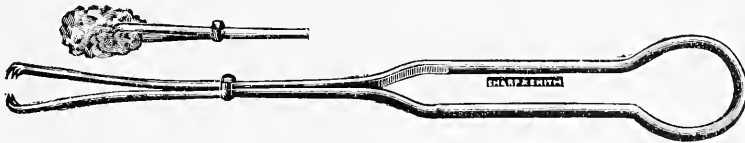
The objections to the ordinary separable or antiseptic lock are four: 1. It is easily broken off by careless manipulation. 2. It is not always easily cleaned. 3. In a few weeks the blades work loose, so that they do not close accurately. 4. Each time the blades of the scissors are ground the pivot must be shortened.

The new forceps lock which I introduced a few weeks ago (see "New York Medical Journal," Feb. 11, p. 151) is not entirely free from some of these objections. 1. The blades of the forceps or scissors are liable to become separated, during the progress of an operation, and cause annoyance and loss of time. 2. The pivot in time works loose. 3. It is very difficult to grind the blades of the scissors accurately, owing to the projecting arm.



In order to overcome these difficulties, I have constructed a lock after the following pattern. The pivot is attached to a spring lever, so that the scissors or forceps consist of three separate pieces, which can be easily adjusted. The blades are plain, with only an opening in each to receive the pivot, so that they can easily be ground or cleaned. The scissors are put together as follows: The blades are placed together, and the pivot is passed through the opening in each blade, and then sprung around into place.

The spring lever always serves to keep the cutting edges in apposition, and to compensate for wear of the surfaces. When properly closed the blades cannot by any amount of careless handling or rough manipulation become separated or twisted apart. The cut explains itself.



We call the attention of the profession to an easily cleaned and perfectly aseptic sponge holder.

The instrument is nine inches long and made out of a single piece of steel wire, nickel plated. The blades are brought together by an incomplete ring of steel, which can be readily slipped off, thus permitting the instrument to be thoroughly cleaned.

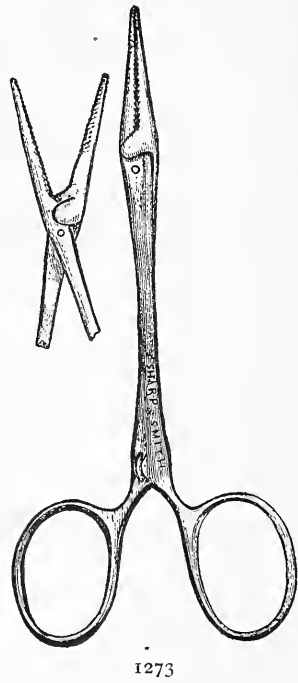
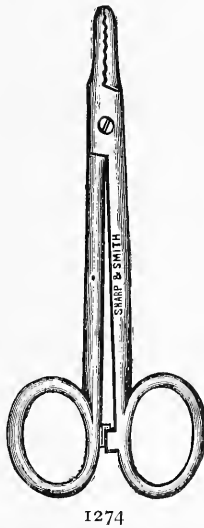
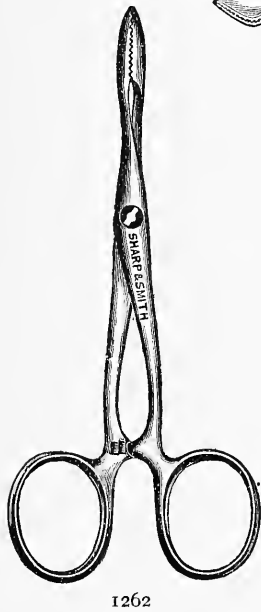
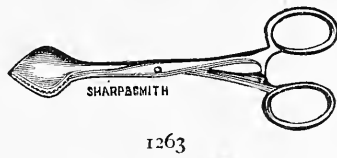
The cut represents the instrument so clearly that further explanation is unnecessary.

The advantages that are claimed for this instrument are:

1. That it is easily cleaned, hence thoroughly aseptic.
2. That it is light, strong and durable.
3. That it is cheap.

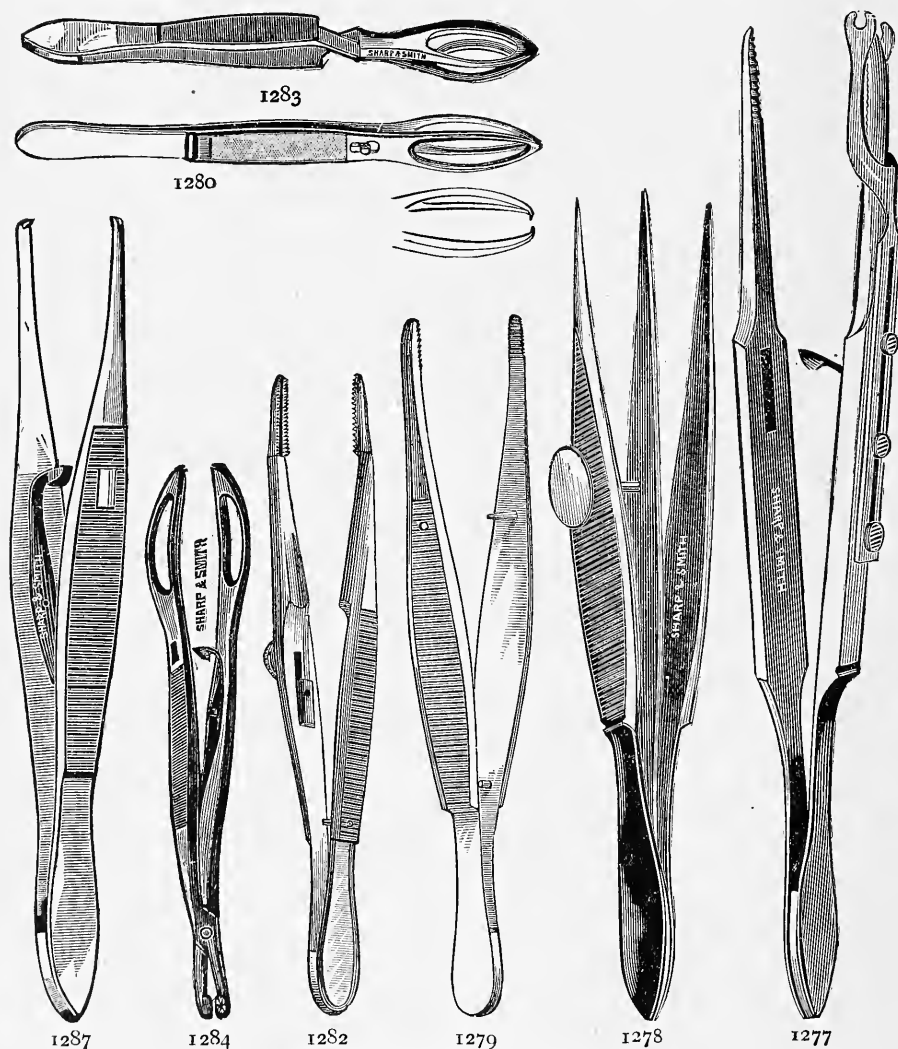


HÆMOSTATIC FORCEPS.



ARTERY FORCEPS.

FIG.			
*1279	Forceps	Artery, plain (thumb).....	\$ 40
*1280	"	" Fenestrated Spring catch.....	1 50
1281	"	" " Slide ".....	1 75
*1282	"	" Slide Catch Torsion.....	1 80
*1283	"	" Fenestrated Cross Action.....	1 00
*1284	"	" and Needle combined Fenestrated Spring Catch.....	2 00
1285	"	" " " " Slide ".....	2 00
1286	"	" Hamilton's Fenestrated.....	1 75
*1287	Liston's	Mouse Tooth Forceps Spring.....	1 25
1288	"	" " " Plain.....	85
1289	Coxeter's	Artery Forceps.....	1 00



Instruments designated by a * are illustrated.

ARTERY FORCEPS.

FIG.					
*1280	Forceps, Allis' Acupressure, straight.....	\$	1	25	
*1281	“ “ “ curved.....		1	25	
*1282	“ “ “ “.....		1	25	
*1282A	“ “ “ “.....		1	75	
*1283	“ “ Suture.....		1	25	
*1284	“ “ Acupressure Scissor Handle.....		2	25	
*1285	“ “ “ “.....		2	25	
*1286	“ “ Suture “ “.....		2	25	

(Extract from "Medical News," September 1st, 1883.)

ACUPRESSURE FORCEPS.

An Instrument for the Instantaneous Arrest of Hemorrhage during Surgical Operations.

BY OSCAR H. ALLIS, M. D.,

Surgeon to the Presbyterian Hospital; Lecturer on Orthopaedic Surgery and Joint Diseases in the Post Graduate Course at Jefferson Medical College; Surgeon to the Jefferson Medical College Hospital.

Under this heading I wish to introduce an instrument to the medical profession that I have devised for the arrest of hemorrhage. It consists of two blades, Fig. 1282, under the command of a spring, the lower of which is a needle, and designed to transfix bleeding tissues, which done, the grasp of the hand is released, and compression is instantly effected between the blunt blade which lies upon the surface of the bleeding vessels and the needle which lies beneath them.



1282

Its special application is where hemorrhage takes place simultaneously from many bleeding vessels. Few surgeons have not felt the need of a certain and instantaneous hemostatic in operations in which the tourniquet cannot be used, or after the tourniquet has been removed. In the latter case, though the main vessels have been ligated, the hemorrhage is often so great from numerous small bleeding points, and the usual means of arrest and ligation so tardy, that fatal collapse has not infrequently resulted.

It is for this class of cases that the acupressure forceps have been devised. Beneath a bleeding area the needle is thrust, and the spring, instantly denoting that the hemorrhage has been arrested, leaves the operator to turn his attention to another point of danger. Thus half a dozen instruments will be found as efficient and much more transparent than a corps of assistants—not getting in the operator's way, and maintaining a silent but effective grip until the ligature may be applied, and the instruments one by one removed. In the surgical clinics of medical colleges, in hospitals, in active military service, and in the private practice of those surgeons who cannot command adequate assistance, this instrument will, I believe, be found of great service.

As acupressure forceps, they often render the ligature unnecessary, for no oozing will follow their removal if the vessels are small, and their application has continued for several minutes. In operating on the female perineum, in which the ligature is to be avoided, this instrument, especially No. 1280, will do excellent work.



1280

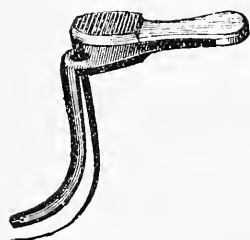
ARTERY FORCEPS.



1281

will be found effectual in deep wounds, as in lithotomy. For plastic operations upon the face a small size is made (Fig. 1282). There are three sizes of No. 1280, three of No. 1282—the largest of which is fully eight inches long.

Although each instrument may be used not only as a hæmostatic, but also as a tenaculum, yet the two designed especially as tenacula are represented in 1282A and 1282B. For this purpose I have found the large size (Fig. 1282B)



1282A

to work admirably. In using the instruments, a quick, firm thrust is necessary, but this manœuvre can easily be acquired on the coat sleeve.

My preference (if I could have but one variety) is for No. 1280. Were I ordering a dozen I should take three of No. 1280, three of No. 1282, two of each a size larger, one of No. 1282B, and one of mammoth No. 1282. No. 1282-B is not necessary if an ordinary tenaculum is at hand, but I believe that those having No. 1282-B will set the old tenaculum aside.

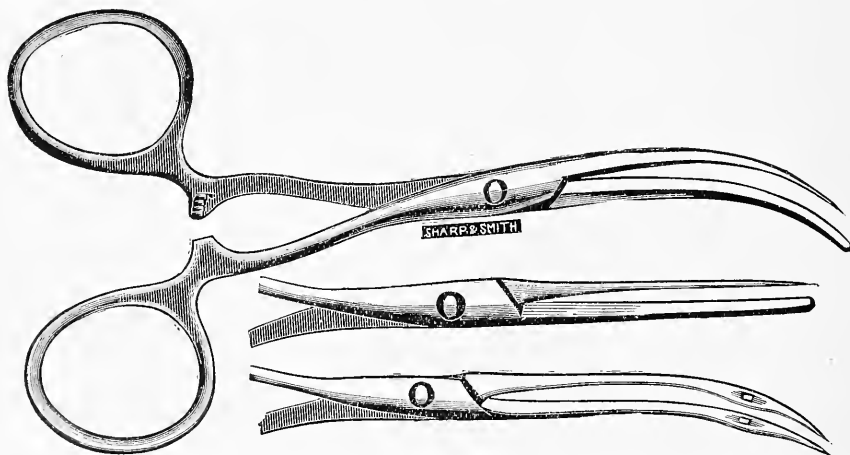
Figure 1282-B is not shown in cut; it is the same as 1282-A, only larger.



1283

SUTURE FORCEPS.

I have given these instruments a satisfactory trial in the Jefferson Medical College clinic and hospital, and in the Presbyterian Hospital, and feel that they have a useful future before them.

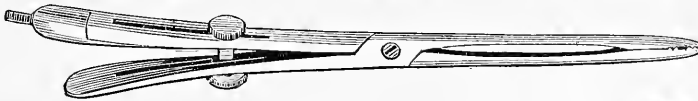


1284-1285-1286

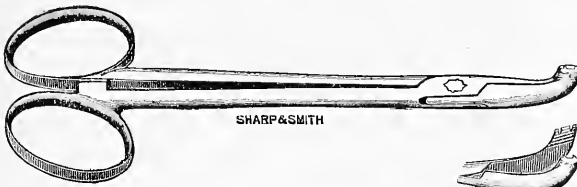
The above Allis' Forceps with Scissor Handles are supposed to be an improvement on the old style, and at present seem to be in fair demand.

ARTERY FORCEPS.

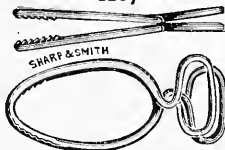
FIG.			
*1287	Forceps, Pratt's Artery, angular.....	\$1	75
1288	“ “ “ long.....	2	50
*1289	“ “ new Artery and tissue.....	2	50
*1290	“ Fænger's Compression French Lock, large 8 inches...	2	50
1291	“ “ “ “ small, 6 “ ...	1	75
*1292	“ “ “ curved, 9½ inch.....	2	50
1293	Langenbeck's Artery Compressor		50
1294	Milne's “ “	1	10
*1295	Levis' “ “		25
*1296	Gross' “ “	2	60
1297	Buck's “ “	27	00
1298	Skey's “ “	18	00
1299	Erichson's “ “	18	75
1300	Briddon's “ “	\$22 50 to	45 00
*1301	Hahn's Artery Compressing Forceps.....	2	25
*1302	Dr. J. Frank's (Chicago) Dressing Forceps.....	1	50
*1303	Adam's Splinter Forceps.....		75
*1303A	Little's “ “		75
*1304	Polypus Dressing “ plain.....	1	00
1305	“ “ “ catch.....	1	25
*1306	Spier's Artery Constrictor.....	3	00
*1307	Mattock's Key Ring Artery Clamp.....		35



1296



1287

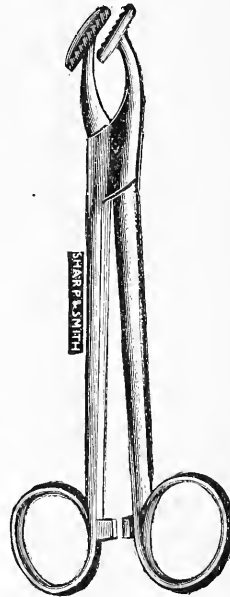


1307

1292



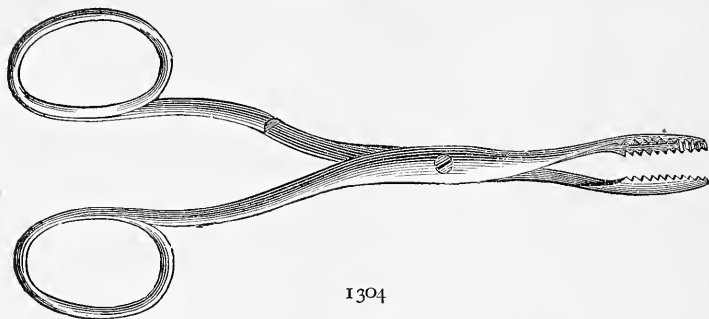
1290



1289

Instruments designated by a * are illustrated.

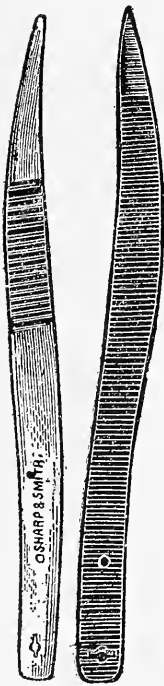
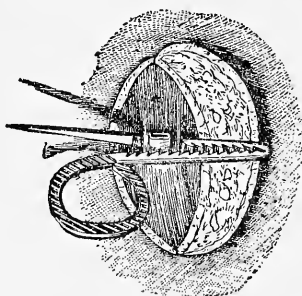
FORCEPS.



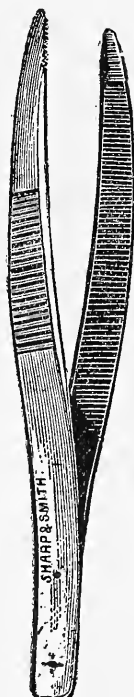
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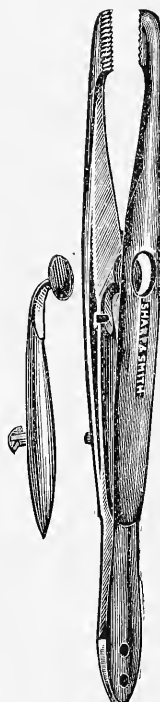
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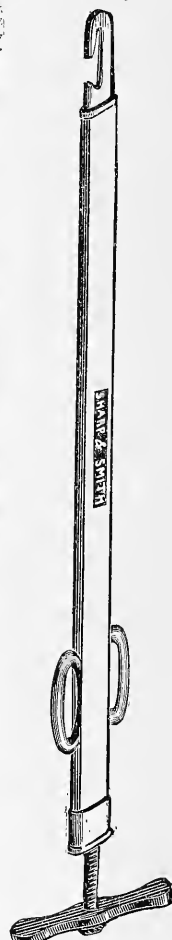
1302



1303-A



1301



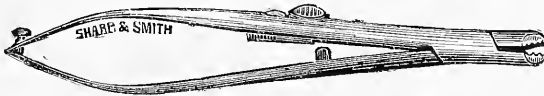
1306

NEEDLE HOLDERS.

FIG.				
*1308.	Needle Holding Forceps, Prout's.....			\$2 60
1309.	" " " " Physic's.....			1 50
*1310.	" " " " Sand's.....			3 00
	" " (see index.) " and Artery Combined Fenestrated....			2 00
1311.	" " " " Philadelphia.....			4 00
*1312.	" " " " Parker's.....			1 50
1313.	" " " " Fritche's.....			3 50
*1314.	" " " " Russian.....			3 00
1315.	" " " " " Imp.			3 25
1316.	" " " " Stimson's (See Fig. 3512, page 609.)..			2 75
*1317.	" " " " Sim's plain.....			1 85
1318.	" " " " " with catch.....			2 00
1319.	" " " " Thomas'.....			3 50
1320.	" " " " Wyeth's.....			3 40
*1321.	" " " " Whitney's.....			3 25



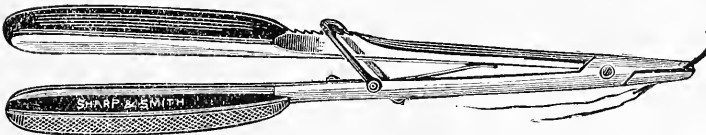
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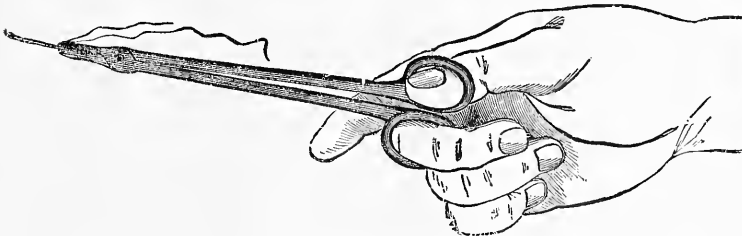
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1310



1314



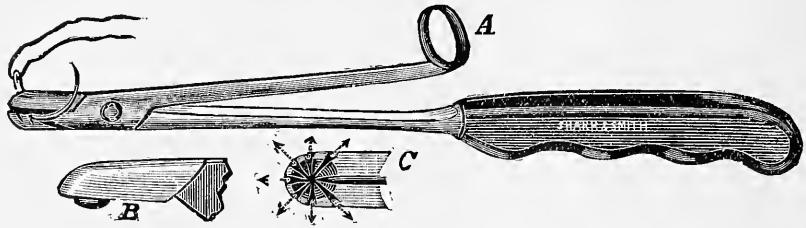
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1321

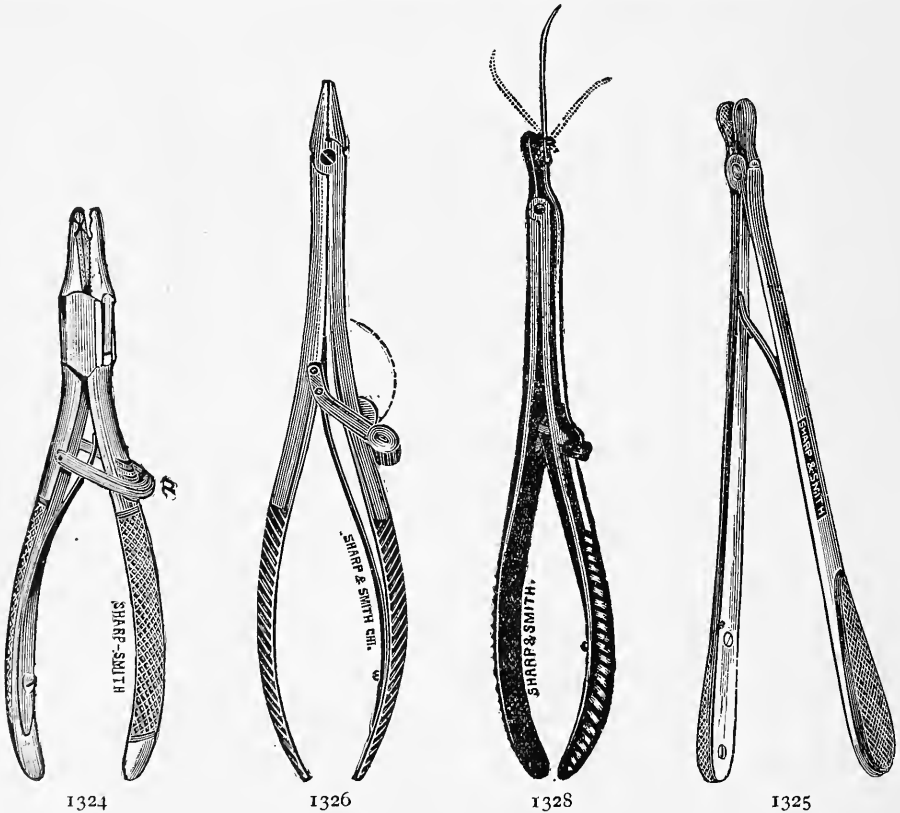
Instruments designated by a * are illustrated.

NEEDLE HOLDERS.



1323

This needle-holder is constructed in such a manner as to hold at different angles a very large or very small, decidedly curved or absolutely straight Hagedorn or round needle. The principle of holding the different curved and shaped needles of this design consists in having the ends of the forceps for seizing the needle ground to fit each other like the ball and socket joint. The socket or lower end of the forceps is ground in grooves at three or four different angles to a point below the base of the socket. And thus the needle fits in either one of these several grooves and the ball end of the forceps presses directly upon the needle in the center of the socket, and holds it firmly. The parts are disjoining, one portion is long for the hand to grasp firmly or lightly, as may be needed, the other is shorter, and made with a ring for the end of the thumb. This is placed at right angles to the axis of the instrument.



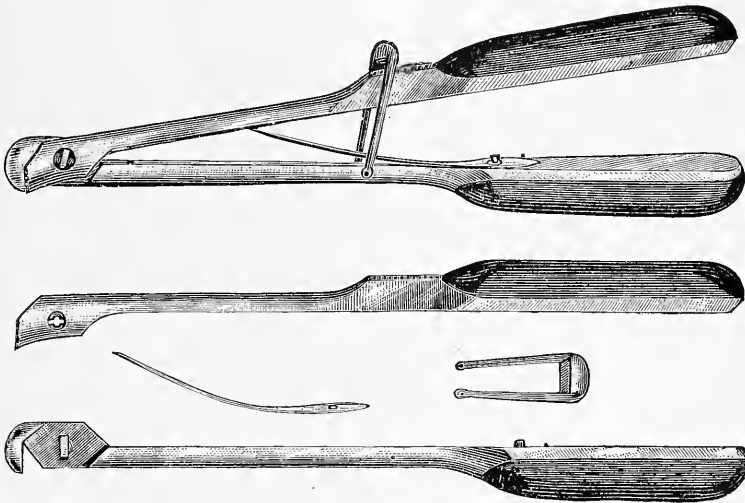
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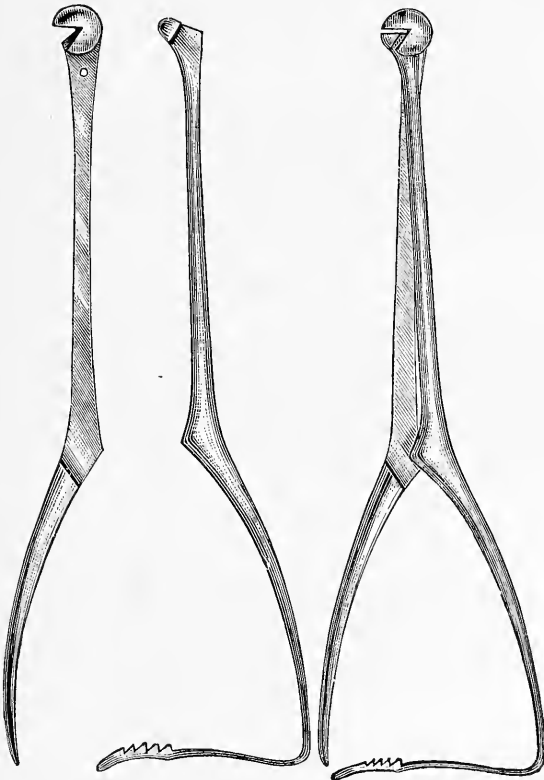
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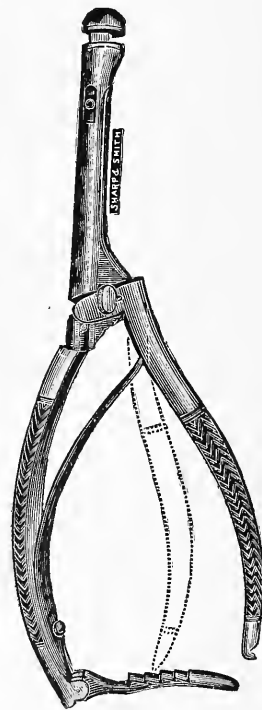
NEEDLE HOLDERS.



1332



1333



1330

NEEDLE HOLDERS.

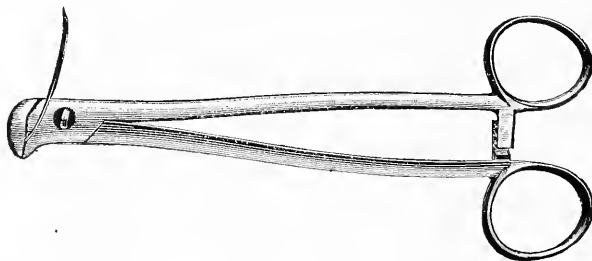
FIG.					
1322	Needle Holding Forceps,	Mathis',	for curved needles	\$4 00
*1323	"	"	"	Hanks'.....	3 00
*1324	"	"	"	Heuel's.....	3 00
*1325	"	"	"	Emmet's	2 25
1326	"	"	"	" with Catch.....	2 65
*1327	"	"	"	Reiners'	3 00
*1328	"	"	"	French.....	3 50
1329	"	"	"	Hagedorn's, small.....	5 00
*1330	"	"	"	" large.....	6 00
*1331	"	"	"	Fowler's.....	3 00
*1332	"	"	"	" with Russian handle.....	5 00
*1333	"	"	"	Gibbons'.....	4 50

All instruments designated by a * are illustrated.

ASEPTIC UNIVERSAL NEEDLE FORCEPS.

BY GEORGE R. FOWLER, M. D., Brooklyn.

Ever since the introduction of the excellent form of flat needle known as the Hagedorn, surgeons have regretted the apparent necessity for a needle holder of considerable complexity of mechanism, in order to grasp this form of needle firmly. The device of Hagedorn for accomplishing this purpose is open to the very serious objection of having a number of "stow-away" places for dirt, and consequently infectious material. It requires the services of a



1331

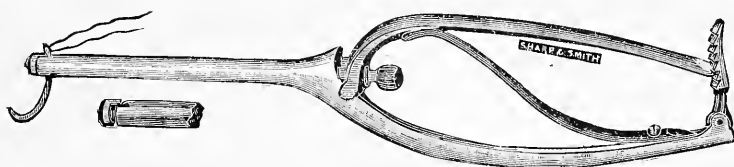
mechanician, when it is cleaned, in order to take it apart and put it together again properly. We have made, a needle forceps which combines three very desirable qualities. In the first place, it is thoroughly aseptic, being composed of but two parts, which unlock and come apart by means of what is known as the "French lock." Secondly, its jaws are of hard steel, instead of being faced with soft copper, as is the case in the Hagedorn forceps, and consequently are more durable; and, lastly, it is so arranged as to grasp firmly a needle of any shape, whether flat, round, or three-cornered. The above cut represents the needle-holder grasping a Hagedorn needle, which can be placed at any angle between its jaws. A shallow groove upon the face of one of its jaws enables it to hold with equal security a round or a three-cornered needle. The advantages of possessing a needle holder capable of grasping any sort of needle will be apparent to every surgeon.

NEEDLE HOLDERS.

ASEPTIC NEEDLE FORCEPS.

By A. ADY, M. D., Muscatine, Iowa.

The instrument represented by the engraving will hold any kind of needle—round, flat, straight or curved—and hold it firmly. It has both a diagonal and a rectangular slot. In these days of antiseptics, all surgical appliances should be as free as possible from any danger of carrying septic material from one case to another; and any instrument that can not be readily taken apart

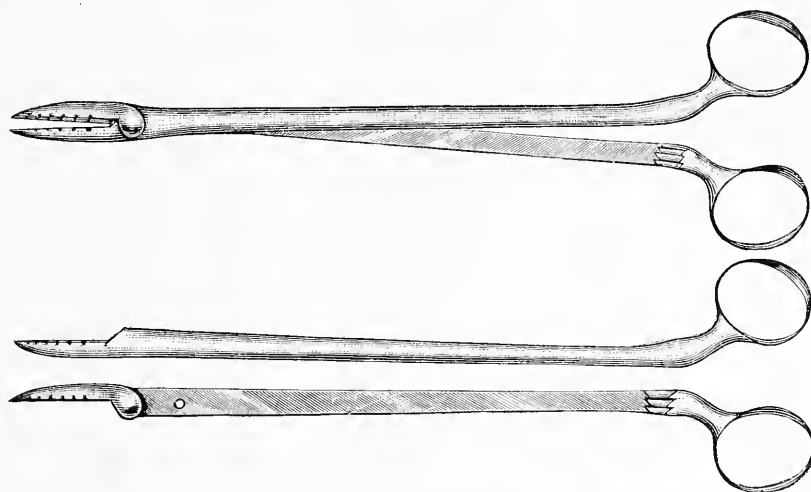


1334

for the purpose of cleansing is consequently dangerous. This holder was invented with special reference to the avoidance of any such danger. Being practically composed of only four pieces, it can be taken apart instantly by removing the nut, and cleansed, and as readily put together again.



1336



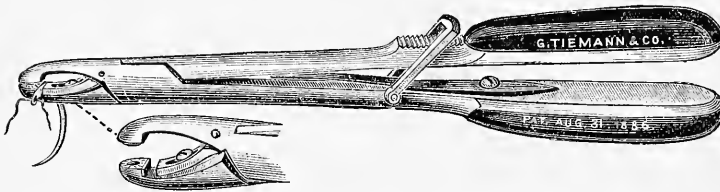
1340



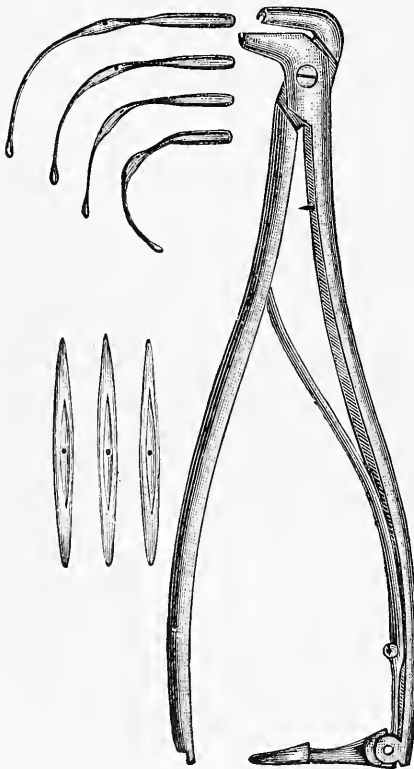
1338

NEEDLE HOLDERS.

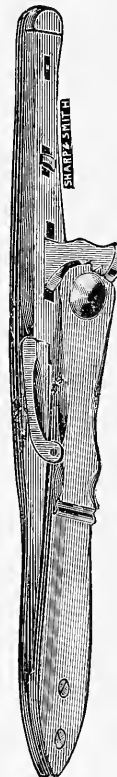
FIG.					
*1334	Needle	Holding	Forceps,	Ady's.....	\$ 7 50
*1335	"	"	"	Ethridge's.....	3 75
*1336	"	"	"	Dr. A. J. Skenes.....	5 50
*1337	"	"	"	Tiemann & Co.'s Patent.....	4 75
*1338	"	"	"	Sharp & Smith's.....	2 50
*1339	"	"	"	Thiersch's & Spindles.....	7 50
*1340	"	"	"	Abbe's modification of Hagedorn's..	3 00
*1340-A	"	"	"	Pocket Case, size of Hagedorn's Needle Holder.....	6 50



1337



1339



1340-A



1335

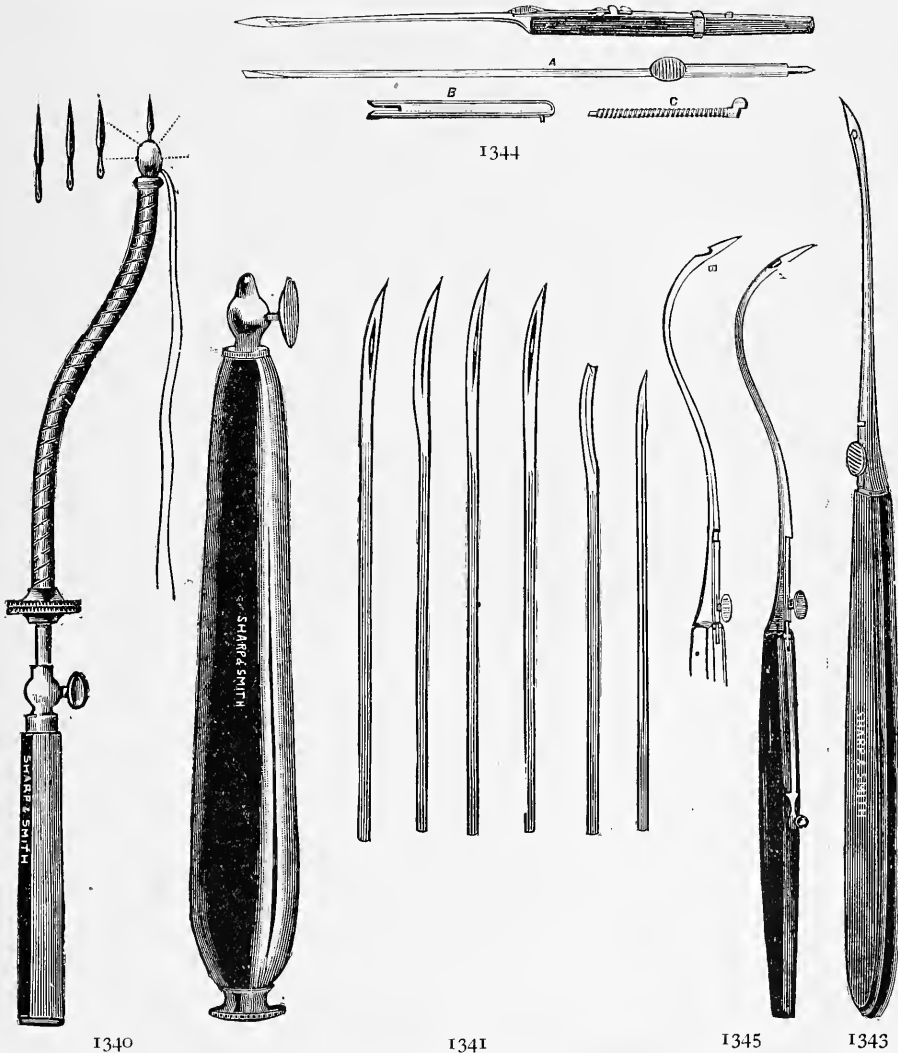
All instruments designated by a * are illustrated.

ARTERY AND PERINEUM NEEDLES.

FIG.

1340-B	Bozeman's Needle Carrier.....	\$6 00
*1341	Parker's Needles, set of six in handle, handle serves as a case for the Needles.....	3 75
*1342	Agnew's Needle and Needle Holder.....set.	3 40
*1343	Rivedon's Perineum Needles in three different curves....each.	3 50
*1344	Keyes' modification of Rivedon's Perineum Needle, straight...	7 00
*1345	“ “ “ “ “ “ curved....	7 00

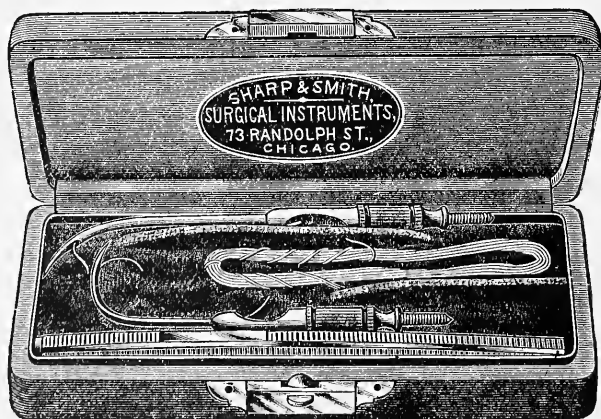
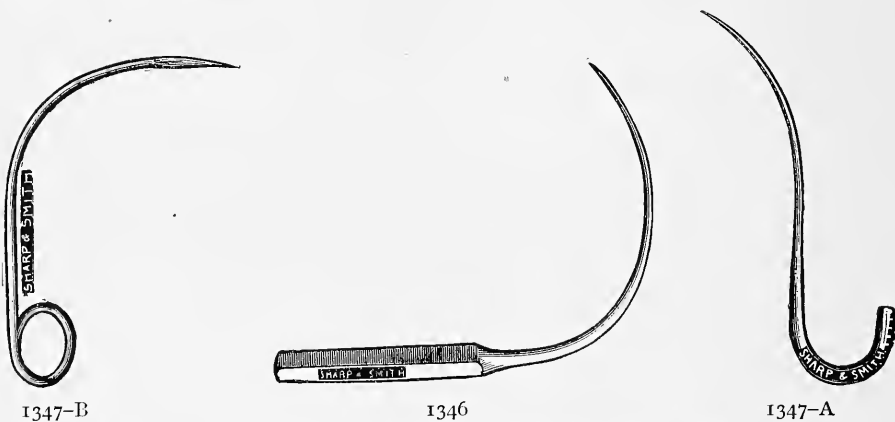
The Keyes Modification Needles can be taken apart and easily cleaned, and consequently are aseptic.



All instruments designated by a * are illustrated.

PERINEUM NEEDLES.

FIG.			
*1346	Wilson's Needle Perineum.....	\$	1 00
*1347	" " Right and left.....	each.	1 50
*1347-A	Papine's Perineum Needle.....		65
*1347-B	Knox " ".....		75
*1348	Sharp & Smith's Hollow Silver Wire Needles, with two Needles.		3 00
1349	" " " " " three "		4 00
*1350	Mott's Aneurism Needle.....		2 25
1351	" " and Director.....		50
1352	Spiral " ".....		1 40
1353	Student's " ".....		2 25
1354	Gunn's Artery ".....		2 60



1348

All instruments designated by a * are illustrated.

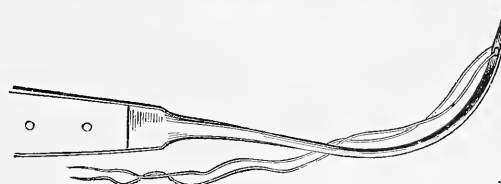
PERINEUM NEEDLES.



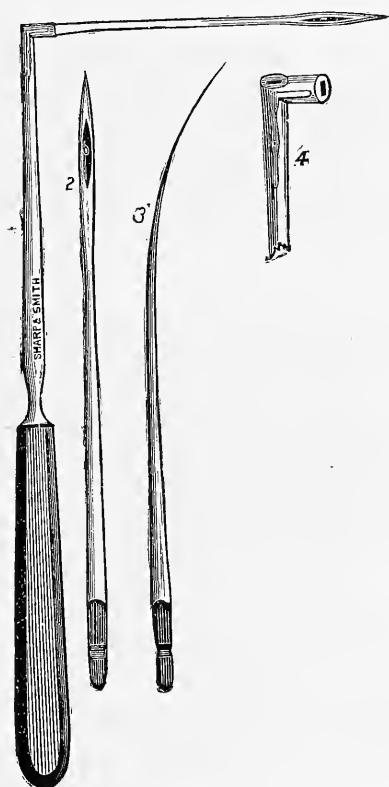
1363



1358



1372



1342



1350

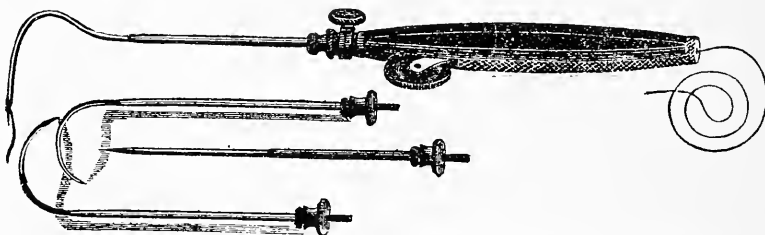


1366

PERINEUM NEEDLES.

FIG.

1355	Crampton's Artery Needle R. & L.....	each.	\$4 00
1356	Parker's " "		1 25
1357	Stone's Canulated "		1 00
*1358	Emmet's " "		1 85
*1359	Pease's " "		9 00
1360	Van Brun's " "	set of 2	3 00
1361	" " " "	" 3	4 25
*1362	Currie's Double Canulated Needle.....		5 25
*1363	T. & Co.'s " " for wire sutures.....		3 00
1364	" " Automatic "		4 85
1365	Hoff's " "		4 25
*1366	Naevus "	each	75
1367	Helical "	"	1 25
1368	Thomas' Perineum "	doz.	1 00
1369	Emmet's Cervical "	"	1 15
1370	Sims' " "	"	1 15
*1372	Plain Aneurism "		75
*1373	Whitehead's Aneurism "		1 30
*1374	Von Brun's " "		1 50



1359

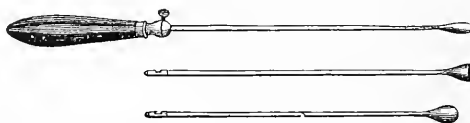


1373



1374

*1374-A	Cautery Irons—Thomas'—Set of 3, with handle.....	per set.	\$3 35
1374-B	" " " " 4, " "	"	4 50
1374-C	" " " Single	each.	1 00
1374-D	" " Handle.....	"	75
1374-E	" Iron Lamp, Self Blowing.....	"	3 00



1374-A

All instruments designated by a * are illustrated.

TROCARS, CURETTES, ETC.

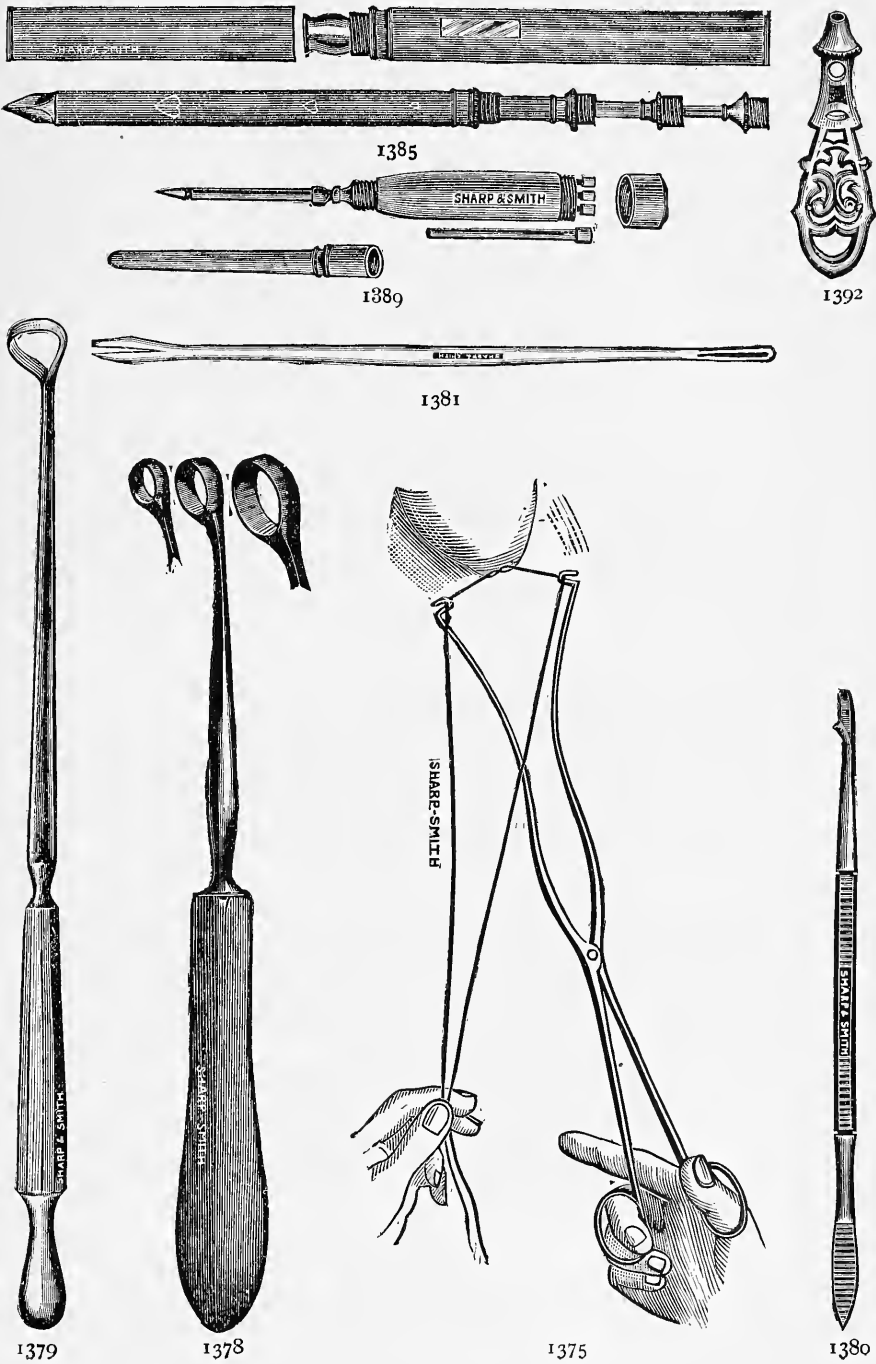


FIG.			
*1375	Carroll's Knot Tyer.....	\$	1 85
1376	Volkman's Bone Scoop.....		1 85
1376-A	Hebra's " ".....		1 85
1377	Brunn's " ".....		1 50
*1378	Piffard's " " 3 sizes.....each.		1 85
*1379	Hoag's Fenestrated Bone Scoop.....		2 50
*1380	Scoop and Elevator.....		1 25
*1381	Dessault's Serre Noed.....		75
1383	Spatula and Elevator.....		55
1384	" " Tongue Tie.....		55
*1385	Nested Trocars, 4 in set, Metal Pencil Case.....		4 85
1387	" " 3 " " " ".....		4 00
1387-A	" " 3 " Ebony Handle.....		3 50
*1387-B	" " 4 " " ".....		4 00
1388	" " 3 " Metal ".....		3 50
*1388-A	Exploring Trocars.....		1 00
*1389	Southey's Trocars and Canulas for Anasarca in Ivory Case....		2 50
1390	Trocar, with German Silver Canula.....		1 00
1391	Self Acting Blow Pipe.....		3 00
*1392	Commodone Extractor.....		50
1393	Porte Meche.....		40
*1394	Director—German Silver and Tongue Tie.....		45
*1395	" " " " Aneurism Needle.....		50
1396	" " " " Ear Spoon.....		50
1397	" Steel and Tongue Tie.....		75
1398	" " Little's.....		60
1399	" " Spear Point and Tongue Tie.....		90
*1400	" " Angular and Tongue Tie.....		90
1401	" " and Probe Point.....		75
1402	" Silver and Olive ".....		1 50
1403	" " " Tongue Tie.....		1 50
1404	" " " Aneurism Needle.....		1 50
1405	" " " Ear Spoon.....		1 50
*1405A	Hunter's Steel Director and Counter Pressure Spatula.....		75
1406	Probes, Silver, 4 to 5 inch.....per pair		50
1407	" Plated, 4 to 5 ".....		35
1408	" Silver, 6 ".....		75
1409	" " 8 ".....		1 10
1410	" " 10 ".....		1 35
1411	" Hamilton's, with Director Set.....		1 50



1388-A

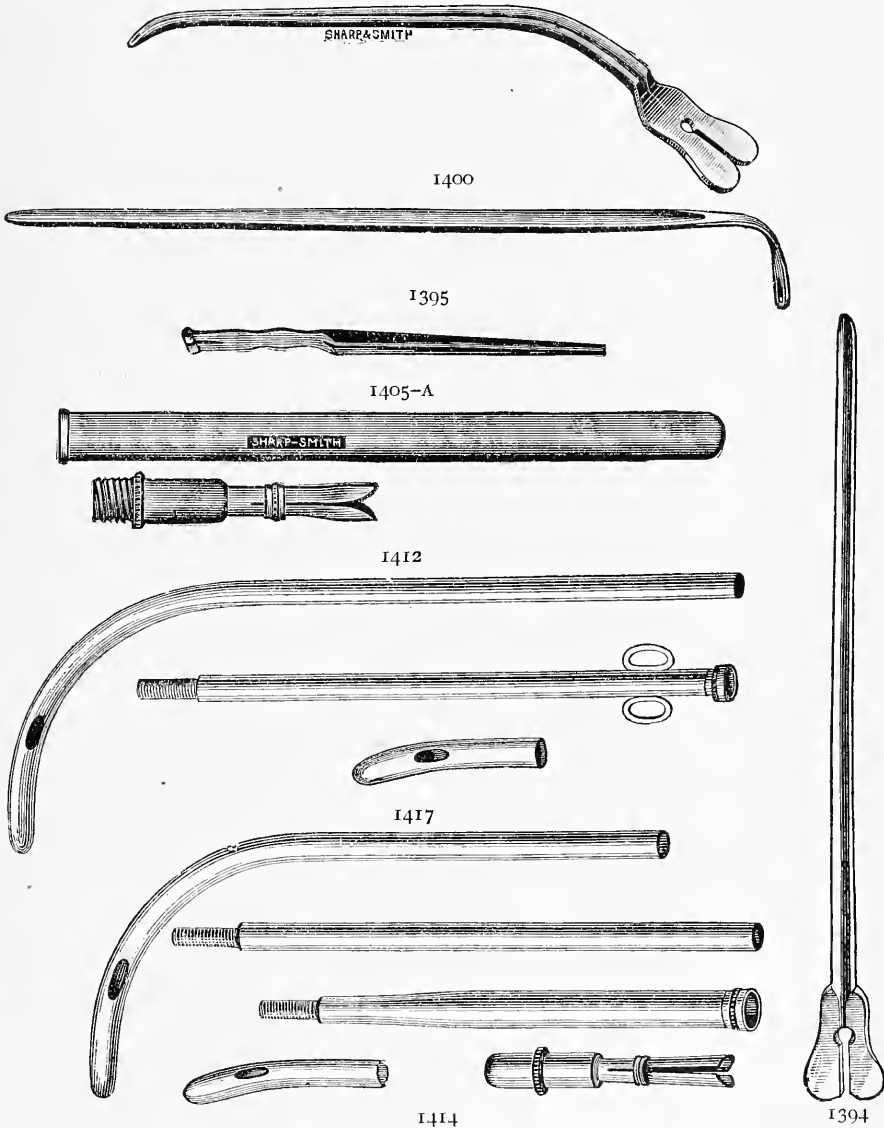


1387-B

All instruments designated by a * are illustrated.

POCKET CASE INSTRUMENTS.

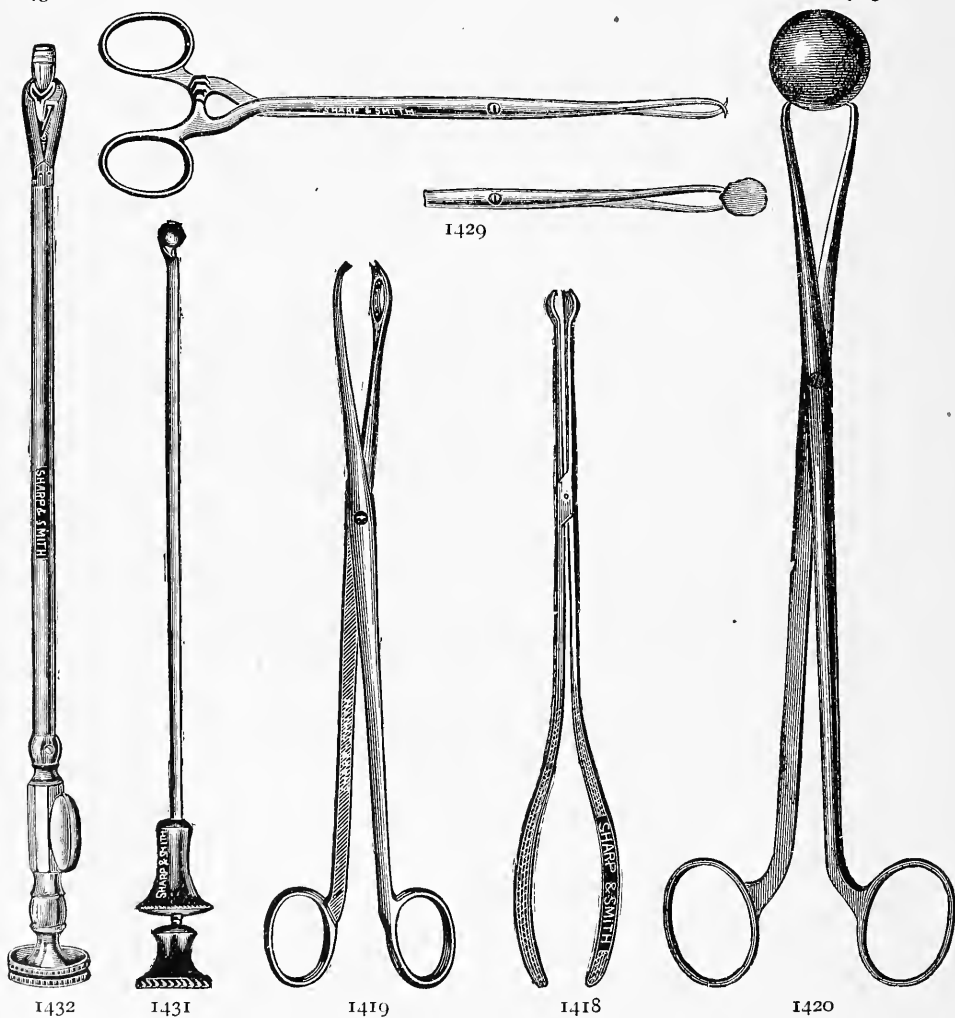
FIG.			
*1412	Silver Caustic Holder.....	\$1	50
	For more complete line of Caustic Holders, see index.		
1412A	Catheters, Plated, Male, 1 to 12		75
1413	" Silver, " 1 to 12.....	1	50
*1414	" Parker's Combined, with Caustic Holder, Silver.....	3	25
1415	" " " " Plated.....	1	75
1416	" Combined Male and Female, Plated.....	1	00
*1417	" " " Silver.....	1	85



All instruments designated by a * are illustrated.

BULLET INSTRUMENTS.

FIG.			
*1418	Bullet Forceps, U. S. A.....	\$1 50	
*1419	" " Gross'.....	1 75	
*1420	" " American.....	1 50	
1421	" " T. & Co.'s Spiral.....	3 40	
1422	" " " latest.....	2 60	
1423	" " Moses'.....	2 60	
1424	" " Gunn's.....	2 25	
1425	" " Hamilton's	1 75	
1426	Dr. Jno. T. Darby's Forceps and Bullet Probe Combined.....	3 00	
1427	Bullet Forceps, Canulated.....	2 60	
1428	Dr. Jno. F. Ball's Bullet and Tenaculum Forceps Combined...	1 85	
*1429	Bullet Forceps, Prussian.....	2 25	
1430	" Extractors, Jones'.....	3 00	
*1431	" " Moses'.....	2 60	
*1432	" " Leonard's.....	7 50	

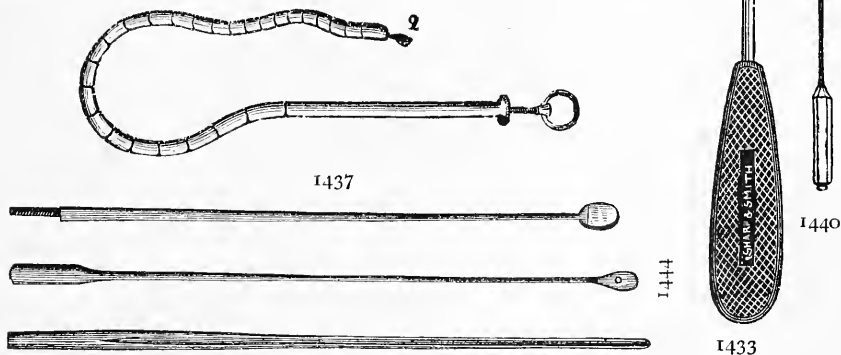


BULLET INSTRUMENTS.

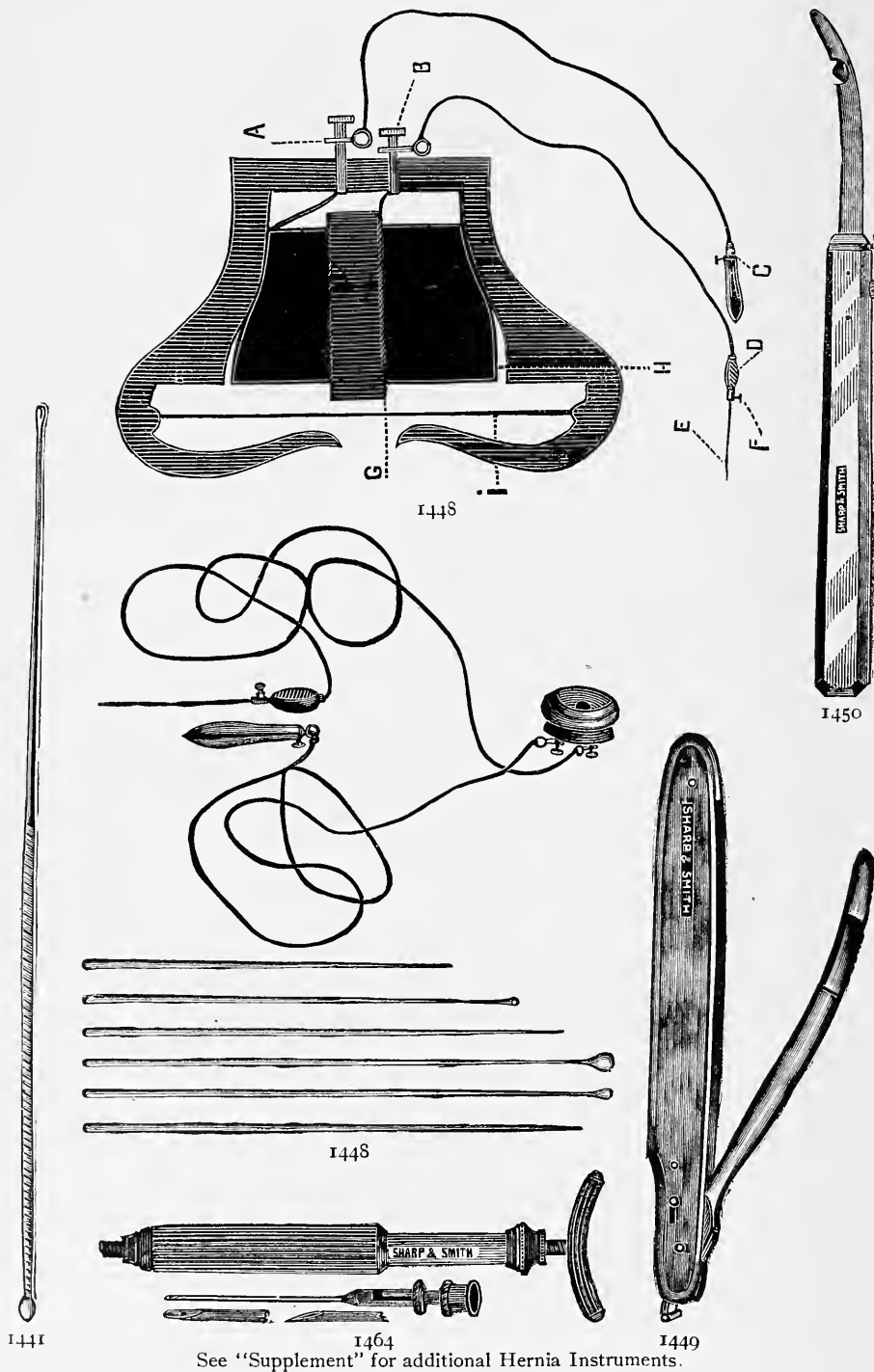
FIG.			
*1433	Bullet Scoop, T. & Co.'s.....	\$	1 30
1434	" Seeker, " Burr Head.....		75
1435	" " "		6 00
1436	" Screw "		1 50
*1437	Bullet Probes, Sayre's Vertebated Silver.....		6 00
1438	" " Long Silver.....	50c to	1 50
1439	" " Lead.....		35
*1440	" " Nelaton's, Porcelain Head.....		45
*1441	" " Spiral (10 inches long) Porcelain Head.....		1 00
1442	" " T. & Co.'s and Lint Introducer.....		60
1443	" " Steele's Elastic.....		1 25
*1444	" " Hamilton's Jointed, with Director and Porcelain Head.....		1 50
1445	Bullet Probes T. & Co.'s.....		75
1446	" " Thomasin's.....		1 85
1447	" " Dr. Jno. T. Darby's Probe and Bullet Forceps Combined.....		3 00
*1448	Bullet Probes, Girdner's Telephonic.....		12 00

HERNIA INSTRUMENTS.

*1449	Hernia Knives, Cooper's Slide Catch.....	\$	1 10
*1450	" " Stewart's.....	\$	3 75
1451	" " Wood's.....		1 15
*1452	" Director, Stanley's.....		1 85
*1453	" " Peters'.....		2 00
*1454	" " Levis'.....		1 10
1455	" " Hinged.....		1 15
1456	" " Curved.....		1 85
1457	" " Buck's.....		1 50
1458	" Needle, Dowell's.....each.		75
*1459	" " Warren's.....		1 50
1460	" " Woods'.....		1 10
1461	" " Riggs'.....		3 75
*1462	" Syringe, Warren's.....		14 00
1463	" " Heaton's.....		3 00
*1464	" " De Garmo's.....		6 00
*1465	" " Greene's.....		5 00
*1466	Herniatome, Allis'.....		5 50
*1467	Hernia Instrument, Agnew's.....		4 75
1467A	" " Wutzer's.....		9 00
1467B	" " Redfern-Davis'.....		11 25

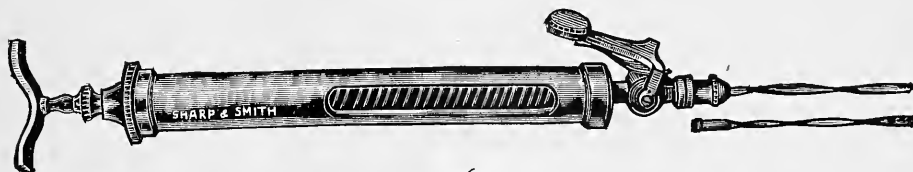


BULLET AND HERNIA INSTRUMENTS.

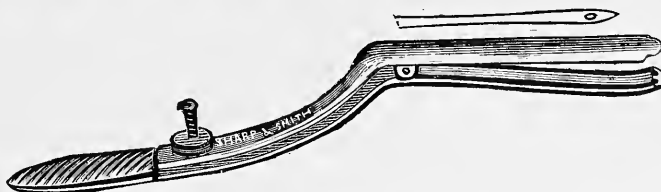
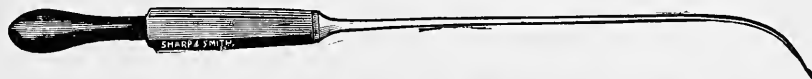


See "Supplement" for additional Hernia Instruments.

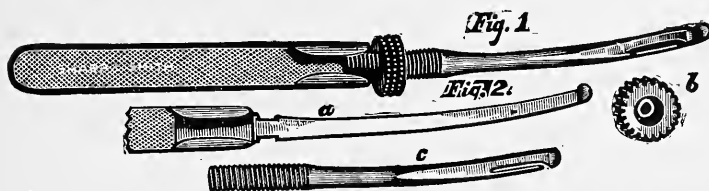
HERNIA INSTRUMENTS.



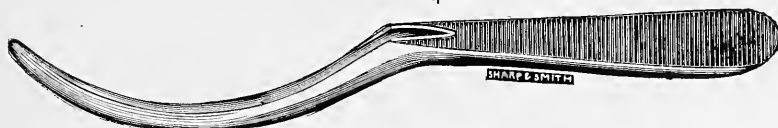
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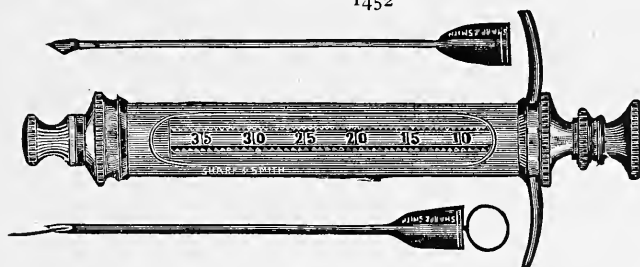
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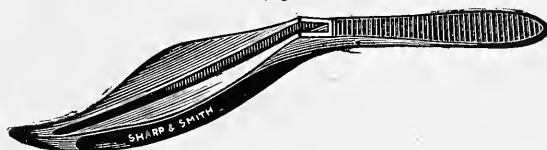
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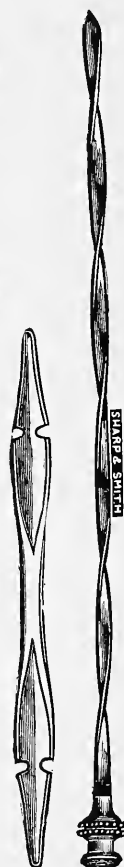
1452



1465



1453



See "Supplement" for additional Hernia Instruments. 1454 1459

DISSECTING INSTRUMENTS AND CASES.

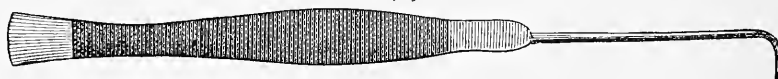
FIG.			
*1468	Sherman's Dissecting Scalpel.....	\$	60
*1469	Ebony Handle Scalpels.....		45
1470	Ivory " ".....		75
1471	Ebony " Tenacula.....		45
1472	Ivory " ".....		75
*1473	Metal " ".....		45
*1474	Chain and Hooks.....	per set.	25
*1475	Cartilage Knife, all Steel.....		60
	" " heavy Ebony Handle.....	I	50
*1476	Brain Knife.....	I	50
*1477	Dissecting Forceps, plain.....		50
1478	" " Coxeter's.....	I	00
*1479	" Scissors, straight.....		75
*1480	" " curved.....		90
*1481	Blowpipes.....		20
*1482	Movable Back Saws.....	I	50
*1483	Plain Chisels.....		35
*1484	Costetome Chisels.....	I	15
*1485	Rachitome ".....	I	50



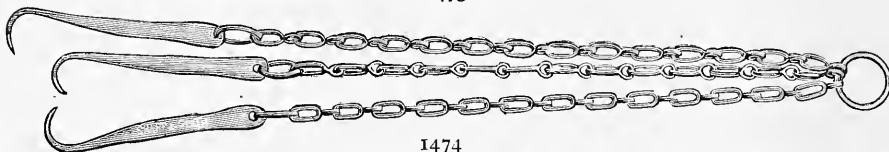
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1469



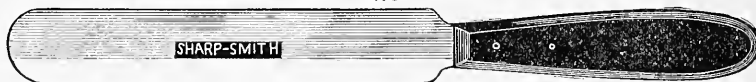
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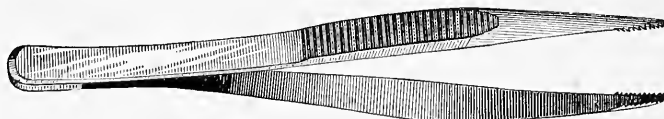
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1475



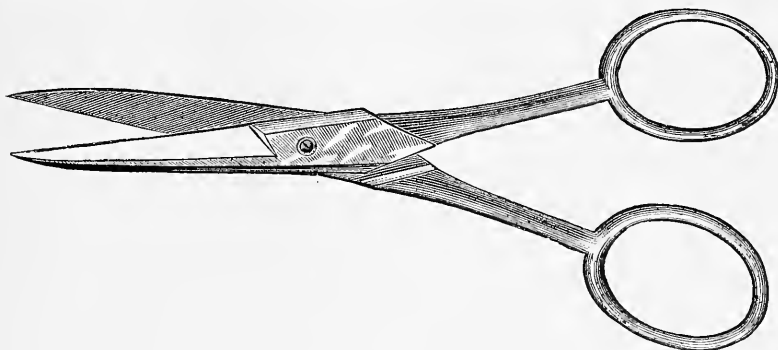
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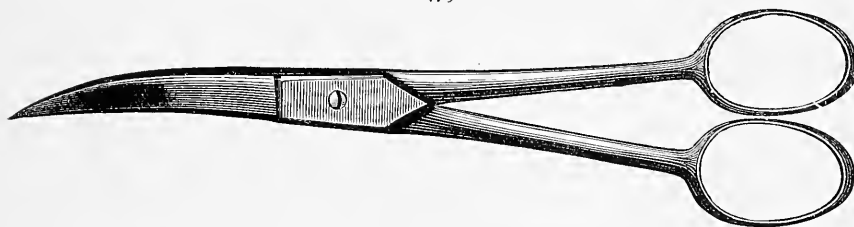
1477

Instruments designated by a * are illustrated.

DISSECTING AND POST MORTEM INSTRUMENTS.



1479



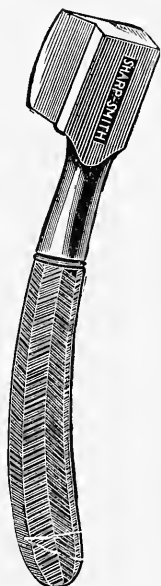
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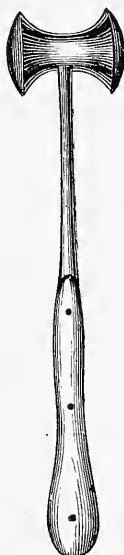
1481



1484



1485



1488



1483

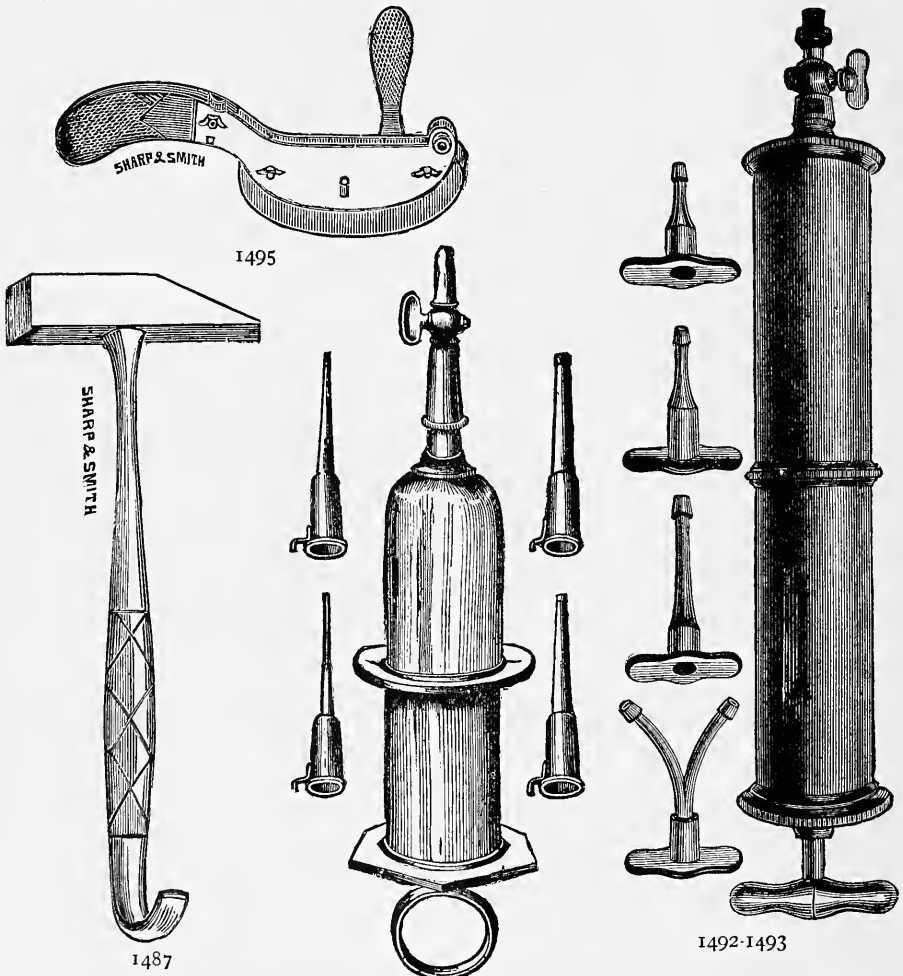


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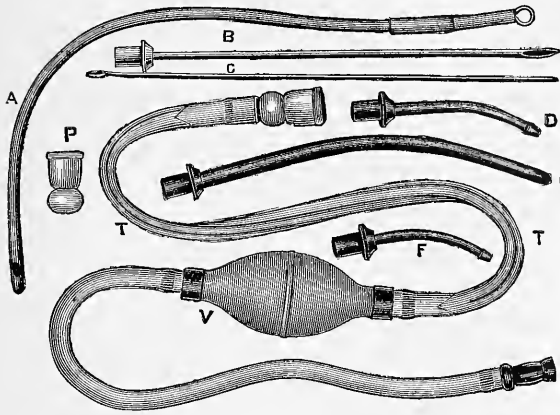
Instruments designated by a * are illustrated.

DISSECTING AND POST MORTEM INSTRUMENTS.

FIG.		
1486	Finnel's Knife and Saw in one handle.....	\$3 75
*1487	Steel Mallet.....	1 75
*1488	Lead ".....	1 75
*1489	Omega Embalming Syringe.....	3 00
*1490	Embalming Syringes.....	\$3 00 to 30 00
1491	" Pump.....	17 00
*1492	Anatomical Pump, No. 1.....	30 00
*1493	" " No. 2.....	22 50
1494	Post Mortem Needles.....	each. 15
1494	Skull Clamp for holding the head.....	5 00
*1495	Double Saw (Rachitome).....	11 25
*1496	Rib Shears.....	3 75
*1497	Enterotome.....	1 75
*1498	Tripod Head Rest.....	2 25



Instruments designated by a * are illustrated.

OMEGA EMBALMING SYRINGE. Continuous Flow.

1489

"Omega Embalming Syringe," \$3.00.

long curved hard rubber tube for lungs, etc.; improved long flexible tube for stomach, etc.; plated clearing wire, patent flexible thimble.

All parts and attachments of this Syringe can be obtained from us.

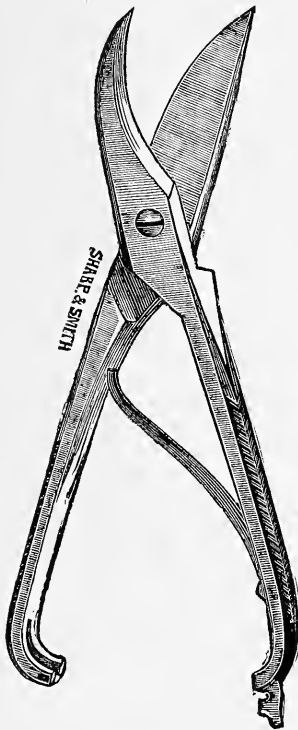
Price packed in handsome book-cloth case.....each \$3 00

This Syringe produces a continuous flow, and is especially adapted for embalmers.

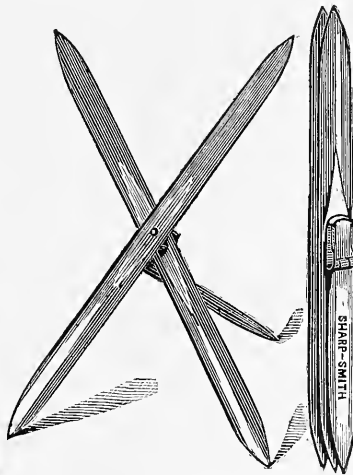
It is the easiest syringe in the world to operate, never tiring the hand. It saves one-half the time usually required in embalming.

The Patent Collapsible Tube PREVENTS ANY BACK ACTION, return of fluid, or injection of air. IT OBVIATES ALL DANGER OF BURSTING AN ARTERY. It has no screw threads or washers therefore it cannot leak. The injection tubes are quickly attached by our Patent Soft Rubber Slip Joint Socket.

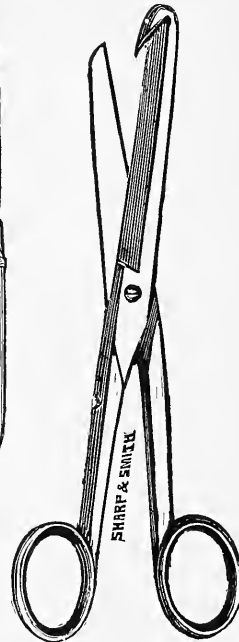
ATTACHMENTS.—Hard rubber large and small curved arterial tubes; nickel plated long trocar;



1496



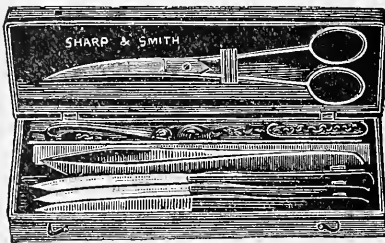
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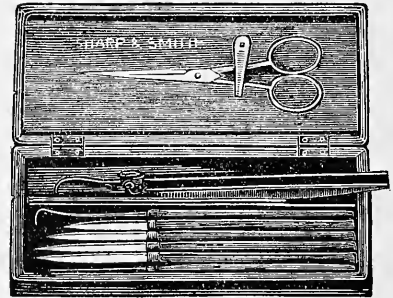
1497

DISSECTING AND POST-MORTEM CASES.

FIG.			
*1499	No. 1	Dissecting Case.....	\$2 25
*1500	No. 2	" ".....	3 20
1501	No. 3	" ".....	3 65
1502	No. 4	" ".....	4 10
*1503	Finnel's Post Mortem Set.....		9 50
1504	Sharp & Smith's Post Mortem Set, No. 1.....		21 00
1505	"	" " No. 2.....	18 00
1506	"	" " No. 3.....	16 50



1499



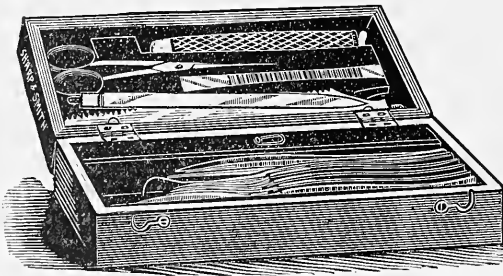
1500

Fig. 1499. No. 1. Dissecting Case, contains: 2 Scalpels; 1 Tenaculum; 1 Cartilage Knife, all Steel; 1 pair Scissors; 1 pair Forceps; 1 Blow Pipe; 1 set Chain and Hooks. In polished Wood Case.

Fig. 1500. No. 2. Dissecting Case contains: 3 Scalpels; 1 Tenaculum; 1 Cartilage Knife, all Steel; 1 pair Scissors; 1 pair Forceps; 1 Blow Pipe; 1 set Chain and Hooks. In polished Wood Case.

1501 No. 3. Dissecting Case, same as above, but with an extra Scalpel.

1502 No. 4. " " " " " two " "



1503

No. 1. Post Mortem set contains: 1 Hammer; 1 Costotome (rib Shears); 1 Steel handle Cartilage Knife; 2 Ebony handle Scalpels, assorted; 1 Steel handle Dissecting Hook; 1 pair Coxeter's Dissecting Forceps; 1 Enterotome; 1 set of heavy Chain Hooks; 1 pair of straight Scissors; 1 Saw; 1 Amputating Knife; 1 handle to fit the Saw and Knife; 1 Chisel; 1 Reamer; 2 Needles, Thread and Wax; 1 Mahogany Case, with a Slide or Lock, lined with Velvet.

No. 2. Post Mortem set contains: 1 Amputating Knife; 1 Saw; 1 handle to fit Saw; 1 Chisel; 1 pair of straight Dissecting Scissors; 1 set of Chain Hooks; 1 pair of Dissecting Forceps; 1 Aneurism Needle; 1 Metacarpal Saw; 3 Ebony handle Scalpels, assorted; 1 Steel Director; 1 probe-pointed Bistoury; 1 Hammer; 1 Steel handle Dissecting Hook; 1 large Ebony handle Cartilage Knife; 1 German Silver Blow Pipe; 2 Needles, Silk and Wax; 1 Mahogany Case, with Lock and Key, lined with Velvet.

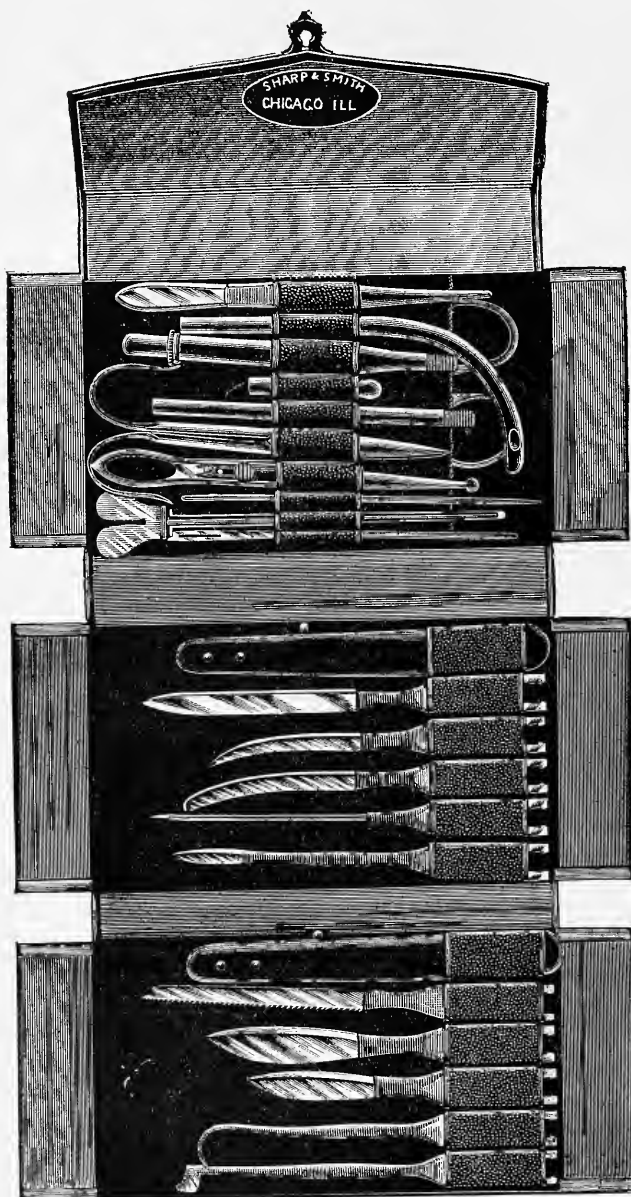
1503 Contains: Amputating Saw and Knife, with one handle to fit both; 3 assorted Ebony Handle Scalpels; 1 Steel Cartilage Knife; 1 Ebony Handle Tenaculum; 1 pair Straight Scissors; 1 set Chain and Hooks; 1 German Silver Blow Pipe; 1 pair Dissecting Forceps; 1 plain Chisel; Needles and Thread. In polished Wood Case, Velvet lined, Lock and Key.

SURGICAL POCKET CASES.

FIG.

*1507	Sharp & Smith's Patent Knife Case, No. 1	\$20 00
1508	" " " " No. 2	15 00
*1509	" " " " No. 3	12 00
1509A	Patent Knife Case, No. 4	15 00
*1510	Sharp & Smith's Two-fold (fine) Russia Pocket Case, No. 1	25 00
*1511	" " " " " " No. 2	18 75
*1512	Two-fold Pocket Set	9 00
1512-A	" " " "	7 50
1513	Peck's Fine Pocket Set	13 50
1514	Van Buren's " " " \$10 50 to	15 00
1515	Four-fold " " " "	13 50
1516	Multum in Parvo " " " "	13 50
1517	Gunn's " " " "	13 00
1518	Parker's Plain " " " "	13 50
1519	" Fine " " " "	18 75
*1520	Three-fold " " " "	11 00
1521	" Pocket Set, Rubber handles	\$7 50 to 10 00
*1522	Hamilton's " " " "	20 00
1523	Two-fold " " " "	9 00
1524	" " Rubber handles	\$5 50 to 7 00
1525	Powell's " " " "	16 50
1526	Andrews' " " " "	22 50
1527	Danforth's " " " "	24 75
1528	Jay's " " " "	15 00
1529	Fine Four-fold " " " "	25 00
1530	Owen's " " " "	11 25
*1532	Tiemann's Patent Pocket Case	24 75
Empty	Pocket Cases, Four-fold Morocco, best	3 00
"	" " Three-fold " (Fig. 1515)	2 50
"	" " " " " \$1 75 to	2 00
"	" " Two-fold " best (Fig. 1512)	2 00
"	" " " " " \$1 25 to	1 75
"	" " One-fold " best	1 75
"	" " Russia, One-fold	2 00
"	" " " Two-fold (Fig. 1510)	2 50
"	" " " Three-fold	2 50
"	" " Gross' (Fig. 1511)	2 00
"	" " Genuine Sealskin, One-fold	2 50
"	" " " Two-fold	3 00
"	" " " Three-fold	3 75
"	" " Alligator, best	3 75
"	" " Sharp & Smith's Patent, No. 1 (Fig. 1507)	3 00
"	" " " " No. 2 (Fig. 1508)	2 75
"	" " " " No. 3 (Fig. 1509)	2 50
"	" " " " fine No. 1	2 50
"	" " " " No. 2	2 00
"	" " " " No. 3	2 00
"	" " Hamilton's	3 00
"	" " Van Buren's	\$1 25 to 2 00
"	" " Gunn's	2 00
Chamois Covers for	Pocket Case, One-fold	60
"	" " Two-fold	75
"	" " Three-fold	1 00

Fig. 1507. Sharp & Smith's Patent Aseptic Case No. 1.



CONTENTS:

- 1 Straight Sharp Bistoury.
- 1 Curved " "
- 1 " Blunt "
- 1 Exploring Needle.
- 1 Tenotomy Knife.
- 1 Metacarpal Saw.
- 1 Large Scalpel.
- 1 Medium " "
- 1 Tenaculum.
- 1 Gum Lancet.
- Two Aseptic handles
to fit any of the above
blades.
- 1 Pair Plain Artery Forceps.
- 1 Fenestrated Artery and
Needle, Forceps com-
bined.
- 1 Pair Pean's French Snap
Forceps.
- 1 Open Ring Scissors.
- 1 Parker's Plated Catheter.
- 1 Director and Aneurism
Needle.
- 1 Pair Plated Probes.
- ½ Dozen assorted Needles
and Silk.

1507

In fine Calf Skin Case, Velvet and Satin Lined, $5 \times 3\frac{1}{4} \times 1$ inches when closed.

See page 355 for description of the knives in the above case.

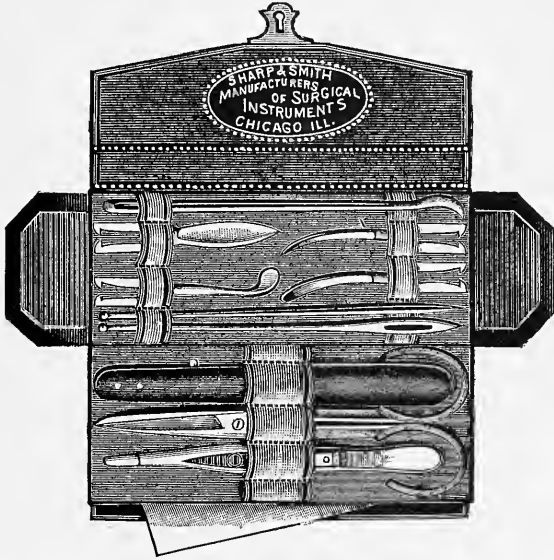


Fig. 1509. Sharp & Smith's Patent Aseptic Case No. 3. Contains:

- | | |
|---|--------------------------------|
| 1 Adjustable Hard Rubber Antiseptic Handle. | 1 pair Scissors. |
| 1 Antiseptic Scalpel. | 1 " Artery and Needle Forceps. |
| 1 " Gum Lancet. | 1 " Probes. |
| 1 " Probe Pointed Bistoury. | 1 Ear Scoop. |
| 1 " Sharp Pointed Bistoury. | 1 Grooved Director. |
| | Needles and Silk. |

Fig. 1509-A. Aseptic Patent Knife Case-No. 4, contains:

- | | |
|----------------------------|--------------------------|
| 1 Exploring Needle. | 1 Curved Sharp Bistoury. |
| 1 Curved Blunt Bistoury. | 1 Large Scalpel. |
| 1 Straight Sharp Bistoury. | 1 Tenotomy Knife. |
| 1 Small Scalpel. | 1 Tenaculum. |
| 1 Gum Lancet. | 1 Metacarpal Saw. |

The above knives all fit in two patent slide catch Ivory handles. The case also contains:

- | | |
|--|-----------------------------------|
| 1 Plated Combination Male and Female Catheter. | 1 pair Straight Scissors. |
| 1 pair Pean's French Snap Artery Forceps. | 1 " plain Artery Forceps. |
| 1 pair Probes. | 1 Silver Tip Caustic Holder. |
| 1 Gross' Ear Spoon and Hook. | 1 G. S. Director and Tongue Tie. |
| | ½ doz. assorted Needles and Silk. |

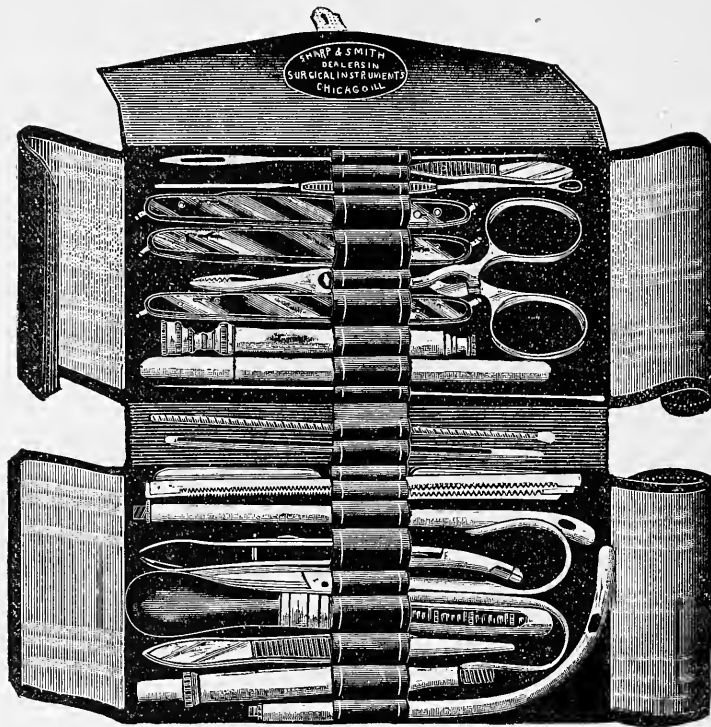
In a fine calfskin velvet and satin lined case, $5 \times 3 \frac{1}{4} \times 1$ inches, when closed.

The above case is one of the neatest and cheapest cases in the market, and is equally as aseptic as cases 1507, 1508 and 1509.

We can put any of the above instruments in cases according to your own selection, charging accordingly.

Cases of all kinds put up to order.

SURGICAL POCKET CASES.



1510

Fig. 1510—Contains a Combined Catheter, Male and Female, with Caustic Holder, Vaccinating Lance and Exploring Needle.

- 1 Self Registering Indestructible Index Fever Thermometer, in Metal Case.
- 1 Silver Barrel Hypodermic Syringe.
- 1 pair Dressing and Polypus Forceps.
- 1 “ Plain Artery Forceps.
- 3 double slide catch pocket case knives (6 blades). Any style knives in combination wanted.
- 1 Lewis' Saw, Folding.
- 1 set Probes to screw together, comprising Bullet Probe (flexible) Porcelain Head.
- 12 Needles and Braided Silk (4 sizes on tablet).
- 1 Set (of 3) Nested Trocars and Canulas.
- 1 Ear Spoon and Spud.
- 1 pair Open Ring Scissors, Gray's.
- 1 “ Splinter Forceps.
- 1 “ Combined Needle and Artery Forceps.
- 1 Eye Probe.
- 1 Grooved Director.

All put up in a two-fold Russia case with chamois or buckskin cover.

Fig. 1511. Sharp & Smith's 2-fold Russia (fine) Pocket Case No. 2, contains:

- 1 Scalpel and probe-pointed Bistoury.
- 1 Sharp-pointed Bistoury and Tenotome.
- 1 Gum Lancet and Tenaculum.
- 1 Pair Straight Scissors.
- 1 Pair Bull Dog Artery Forceps, with spring catch.
- 1 Pair Dressing Polypus Forceps.
- 1 Steel Director.
- 2 Silver Probes.
- 1 Metacarpal Saw.
- 1 Thumb Lancet.
- 1 Exploring Needle.
- 1 Compound Catheter and Caustic Case, of sterling silver.
- 1 Spatula and Elevator.

Turkey Morocco case, silk velvet lining, silver lock. Instruments double-bladed, tortoise-shell handles, slide-catch.

For illustration of 1511 case, see next page.

SURGICAL POCKET CASES.

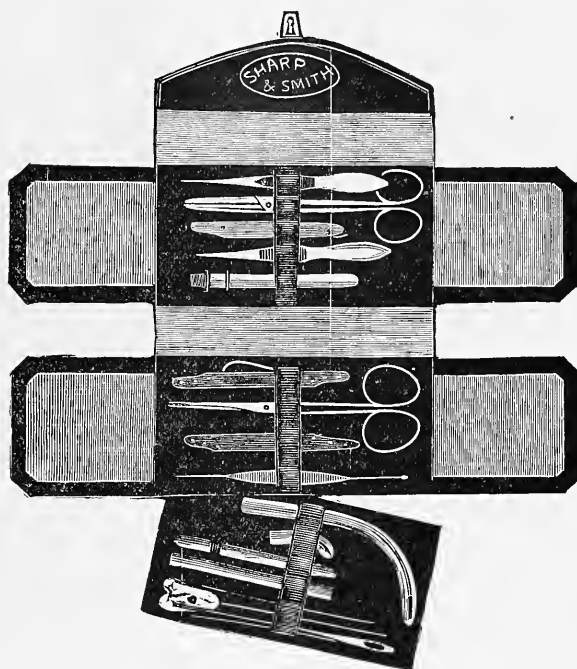


Fig. 1511. For contents see preceding page.

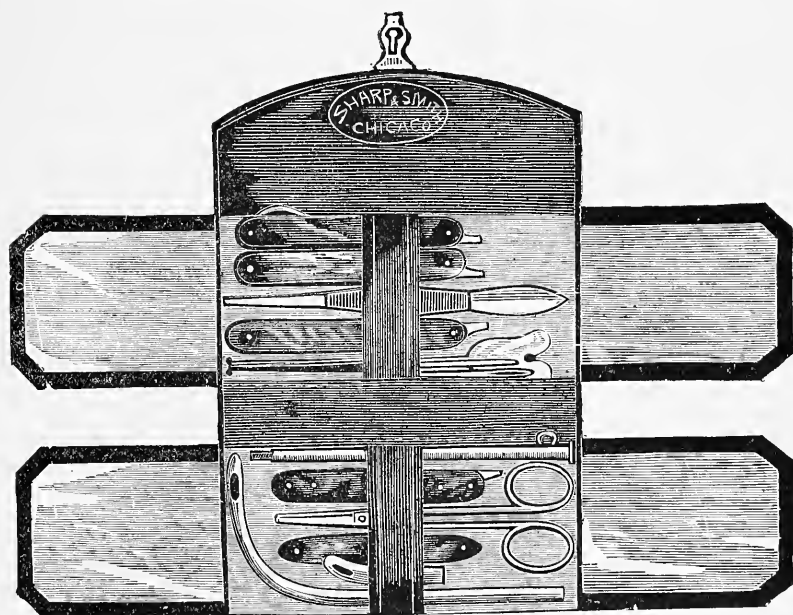


Fig. 1512. For contents see following page.

SURGICAL POCKET CASES.

Fig. 1512. Two-Fold Morocco Case, single bladed Instruments, with tortoise shell handles. Contents: (For illustration see preceding page.)

- | | |
|---------------------------|--|
| 1 Scalpel. | 1 Pair Dressing Forceps. |
| 1 Probe-pointed Bistoury. | 1 Hard Rubber and Silver Caustic Case. |
| 1 Tenaculum. | 1 Compound (Male and Female) Catheter. |
| 1 Pair Straight Scissors. | 1 Director. |
| 1 " Artery Forceps. | 6 Needles, and 1 Skein Silk. |
| 1 " Silver Probes. | |

Fig. 1512-A. Same Case as above, except Knives in Rubber Handles.

Fig. 1513. Peck's Fine Pocket Set.

Two-Fold fine Russia Case, velvet-lined. Instruments are tortoise shell handled, with slide catch and double bladed. Contents:

- | | |
|-----------------------------------|--|
| 1 Scalpel and Straight Bistoury. | 1 Ivory Exploring Needle. |
| 1 Sharp and Probe-curved Bistoury | 1 Pair Probes. |
| 1 Tenaculum and Tenotome. | 1 Compound (Male and Female) Catheter. |
| 1 Pair Straight Scissors. | 1 Director and Aneurism Needle. |
| 1 " Fenestrated Artery Forceps. | 1 Coil Silver and 1 Coil Iron Wire. |
| 1 " Thumb Forceps. | |
- Needles, Silk, etc.

Fig. 1514. Van Buren's Pocket Set.

Turkey Morocco Case, silk velvet lining, silver lock. Instruments double bladed, tortoise shell handles, with slide or spring catch. Contents:

- | | |
|------------------------------------|--|
| 1 Sharp pointed Bistoury and Teno- | 1 Steel Director. |
| tome. | 2 Silver Probes. |
| 1 Scalpel and 1 Probe pointed Bis- | 1 Compound (Male and Female) |
| toury. | Catheter, Sterling Silver. |
| 1 Gum Lancet and Tenaculum. | 1 Caustic Case, Sterling Silver, seamless. |
| 1 Pair Straight Scissors. | Needles, Silk, etc. |
| 1 " Bull Dog Artery Forceps. | |

Fig. 1515. Four-Fold Pocket Set.

Four Fold Morocco Case. Instruments have tortoise shell handles and are single bladed. Contents:

- | | |
|----------------------------------|------------------------------|
| 1 Compound (Male and Female) | 1 Sharp Pointed Bistoury. |
| Catheter. | 1 Pair Straight Scissors. |
| 1 Tenaculum. | 1 " Curved Scissors. |
| 1 Hard Rubber Caustic Case. | 1 Thumb Lancet. |
| 2 Silver Probes. | 1 Spatula. |
| 1 Exploring Needle. | 1 Pair Dissecting Forceps. |
| 1 Director and Aneurism Needle. | 1 Straight Finger Bistoury. |
| 1 Probe Pointed Bistoury. | 1 Seton Needle. |
| 1 Pair Dressing Polypus Forceps. | Needles, Ligature Silk, etc. |
| 1 Scalpel. | |

Fig. 1516. Multum in Parvo Pocket Set.

Turkey Morocco Case, silk velvet lining, silver lock. Instruments are tortoise shell handled, with spring or slide catch, and double bladed. Contents:

- | | |
|---------------------------------------|---|
| 1 Scalpel and Probe pointed Bistoury. | 1 Pair Fenestrated spring catch Artery Forceps. |
| 1 Sharp pointed Bistoury and Teno- | 1 Female Catheter and Caustic Case, |
| tome. | made of Sterling Silver. |
| 1 Gum Lancet and Tenaculum. | 2 Silver Probes. |
| 1 Pair Straight Scissors. | Needles, Silk, etc. |
| 1 Steel Director. | |

SURGICAL POCKET CASES.**Fig. 1517. Gunn's Pocket Set.**

Turkey Morocco Case, silk velvet lining, silver lock. Instruments double bladed, with tortoise shell handles and slide or spring catch. Contents:

- | | |
|--|--|
| 1 Scalpel and Exploring Needle. | 1 Pair Scissors. |
| 1 Sharp Pointed Bistoury and Tenotome. | 1 Screw Probe Director. |
| 1 Probe Pointed Bistoury and Scalpel. | 1 Pair Torsion Forceps, with slide-catch and a long groove (answers also for holding Suture Needle.) |
| 1 Seton Needle. | Needles, Silk, etc. |
| 1 Tenaculum. | |

Fig. 1518. Parker's Plain Pocket Set.

Two Fold Morocco Case, plain double bladed Instruments, with tortoise shell handles. Contents:

- | | |
|---------------------------------------|--|
| 1 Scalpel and Probe Pointed Bistoury. | 1 Lancet. |
| 1 Tenotome and Sharp Pointed " " | 2 Silver Probes. |
| 1 Tenaculum and Gum Lancet. | 1 Steel Spatula. |
| 1 Pair Dressing Forceps. | 1 Steel Director. |
| 1 " Artery Forceps. | 1 Plated Compound Catheter and Caustic Holder. |
| 1 " Scissors. | |
- Needles, Silk, etc.

Fig. 1519. Parker's Fine Pocket Set.

Contents the same as Parker's Pocket Set. Tortoise shell handled Instruments, either slide or spring catch, extra fine finished; the Compound Catheter (Male and Female) is made of sterling silver; the Caustic Holder is *seamless*, and will last much longer than a soldered one. The case is made of genuine Turkey Morocco, with a silver lock, very neat and compact.

Fig. 1520. Three Fold Pocket Set.

Three Fold Morocco Case, single bladed Instruments, with tortoise shell handles. Contents:

- | | |
|--|--|
| 1 Scalpel. | 1 Spatula. |
| 1 Probe Pointed Bistoury. | 1 Sharp Pointed Bistoury. |
| 1 Tenaculum. | 1 Gum Lancet. |
| 1 Pair Straight Scissors. | 1 Compound (Male and Female) Catheter. |
| 1 " Artery Forceps. | 1 Director. |
| 1 " Dressing Forceps. | 1 Pair Silver Probes. |
| 1 Hard Rubber and Silver Caustic Case. | 6 Needles, and 1 Skein Silk. |

For description, see following page.

Fig. 1522. Hamilton's Pocket Set.

Turkey Morocco Case, lined with silk velvet, silver lock. Instruments double bladed, with tortoise shell handles and spring catch. Contents:

- | | |
|--|--|
| 1 Large Scalpel and Exploring Needle. | 1 Pair Slide Catch Torsion Forceps. |
| 1 Medium and 1 Small Scalpel. | 1 " Straight Scissors. |
| 1 Tenaculum and Aneurism Needle. | 1 Thumb Lancet. |
| 1 Sharp and 1 Blunt pointed Tenotome. | 1 Set Silver Probes and Nelaton's Bullet Probe. |
| 1 Metacarpal Saw. | 1 Compound (Male and Female) Catheter and Caustic Holder, of Sterling Silver |
| 1 Pair Bull Dog Artery Forceps, with spring catch. | |

Needles, Ligature Silk, etc.

For description see following page.

SURGICAL POCKET CASES.

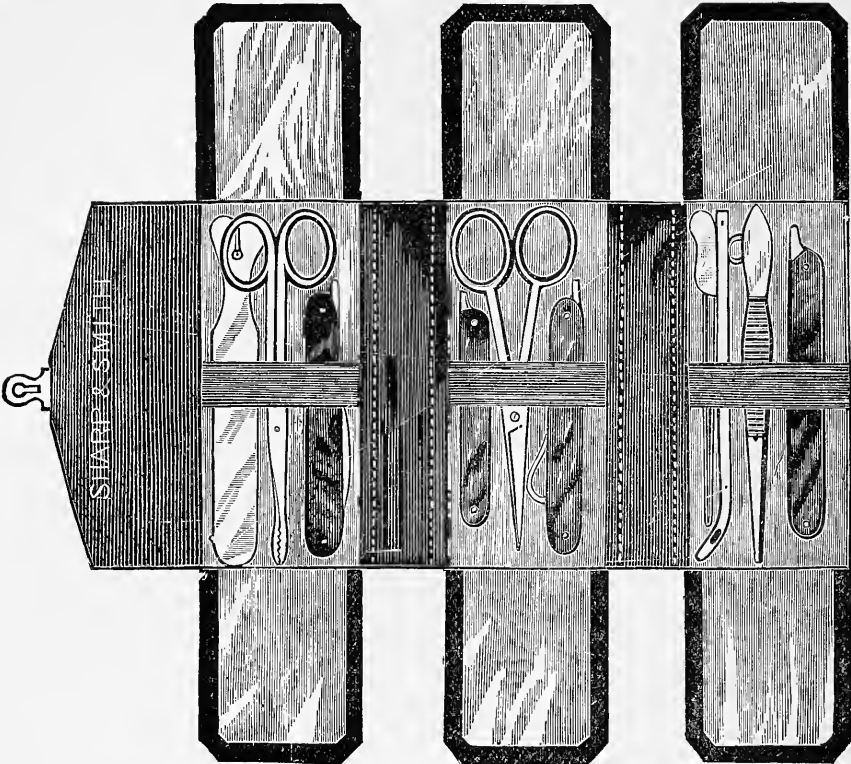


Fig. 1520. For contents see preceding page.

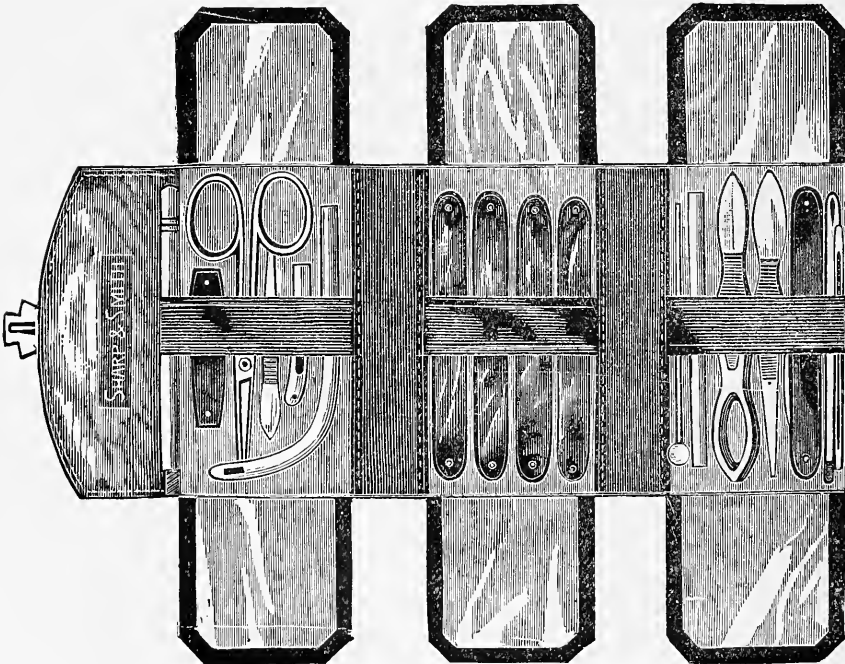


Fig. 1522. For contents see preceding page.

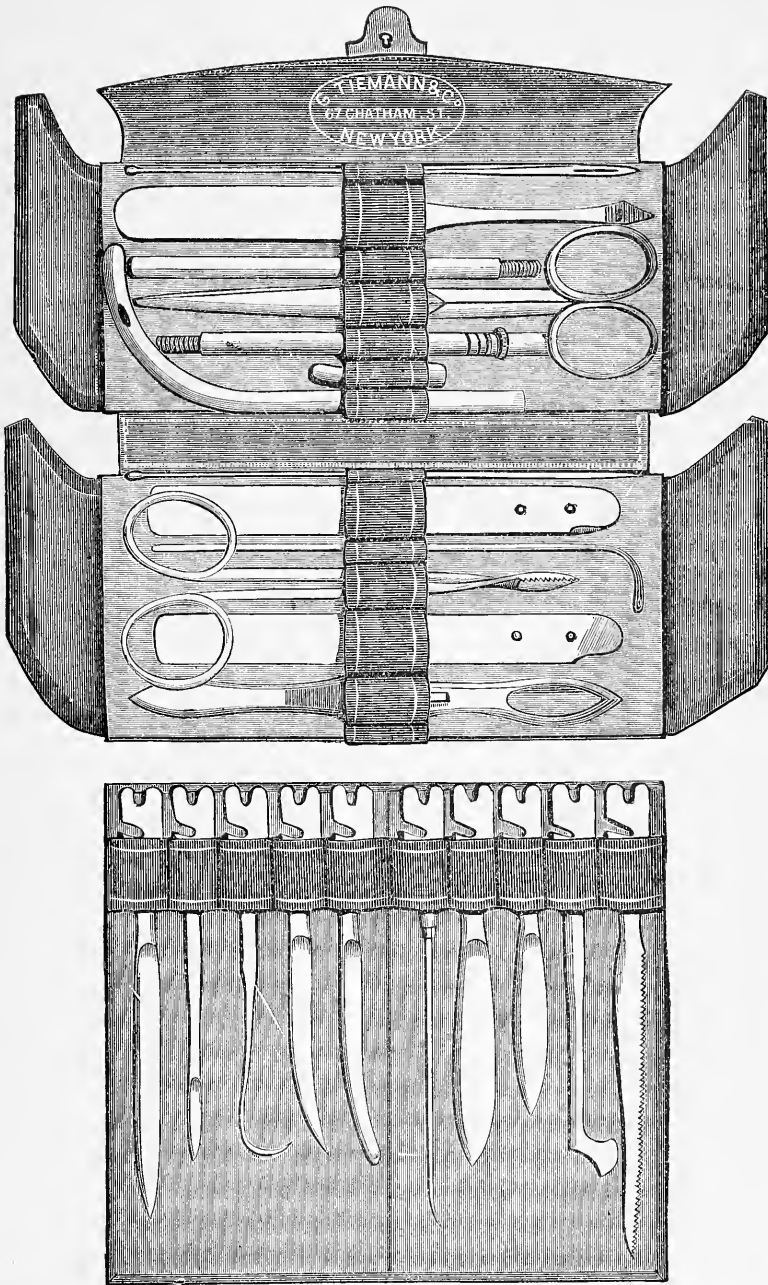


Fig. 1532. T. & Co.'s Patent Pocket Set.—PATENT CATCH INSTRUMENTS.

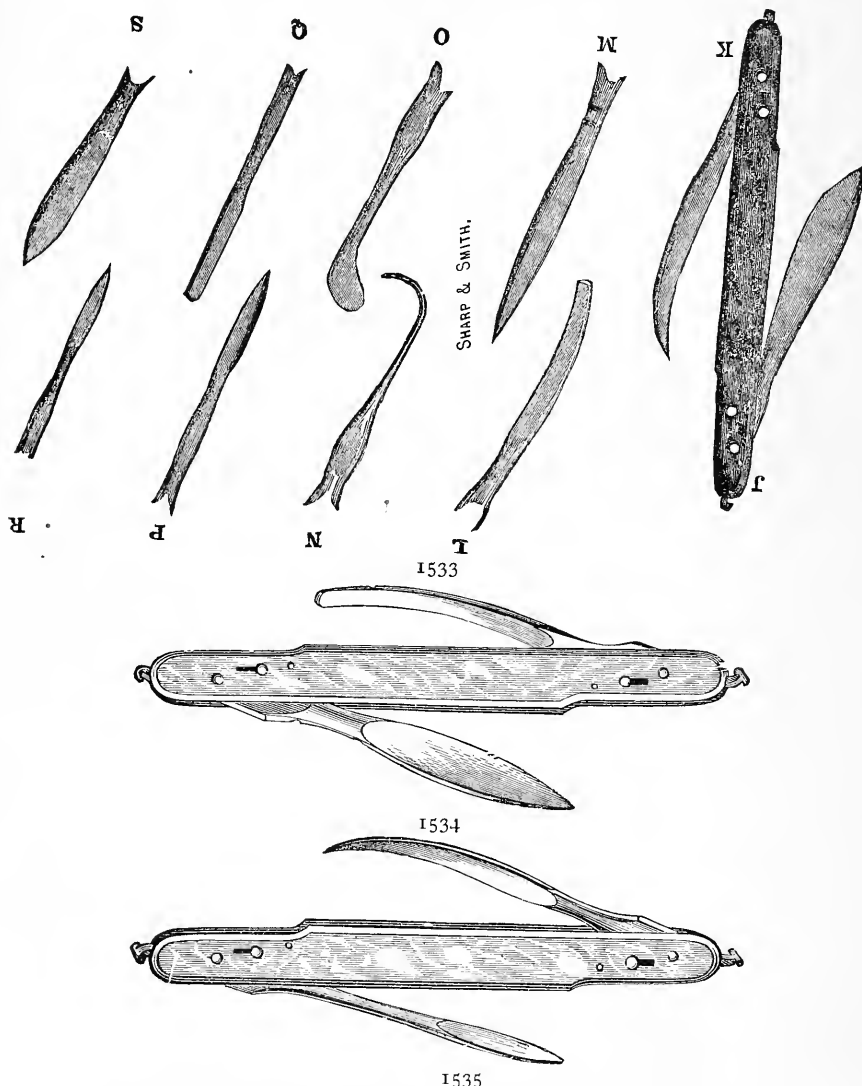
A very neat and compact Case, of Turkey Morocco, with silver lock. Contents:

- | | | | |
|----------------------------|-------------------|---|-----------------------------|
| 2 Patent Catch Handles. | 1 Tenotomy Knife. | 1 Pair Straight Scissors. | 1 Grooved Director and |
| 1 Post's Exploring Needle. | 1 Large Scalpel. | 1 Pair Dressing Forceps. | Aneurism Needle. |
| 1 Tenaculum. | 1 Small Scalpel. | 1 Pair spring-catch Fenestrated Artery Forceps. | 1 Compound Catheter, of |
| 1 Gum Lancet. | 1 Finger Knife. | 1 Spatula. | Sterling Silver |
| 1 Sharp Pointed Bistoury. | 1 Metacarpal Saw. | 2 Silver Probes. | 1 Caustic Case, of Sterling |
| 1 Probe Pointed Bistoury. | 1 Lancet. | | Silver, <i>seamless</i> . |

Needles, Suture Silk, Suture Wire, etc.

POCKET CASE INSTRUMENTS.

FIG.			
*1533	Double Blade Slide Catch, Tortoise Shell handle Knives, Scalpel and curved sharp Bistoury, J K.....	\$	1 75
*1533	Double Blade Slide Catch, straight, sharp and curved blunt Bistoury, L M.....		1 75
*1533	Double Blade Slide Catch Tenaculum and Gum Lancet, N O...		1 75
*1533	" " Sharp and Blunt Tenotome, P Q.....		1 75
*1533	" " Scalpel and Tenotome, R S.....		1 75
*1534	" " " " curved blunt Bistoury...		1 75
*1535	" " Tenotome and curved sharp Bistoury.		1 75



(See following page for additional Double Slide Pocket Case Knives).

All instruments designated by a * are illustrated.

POCKET CASE KNIVES.

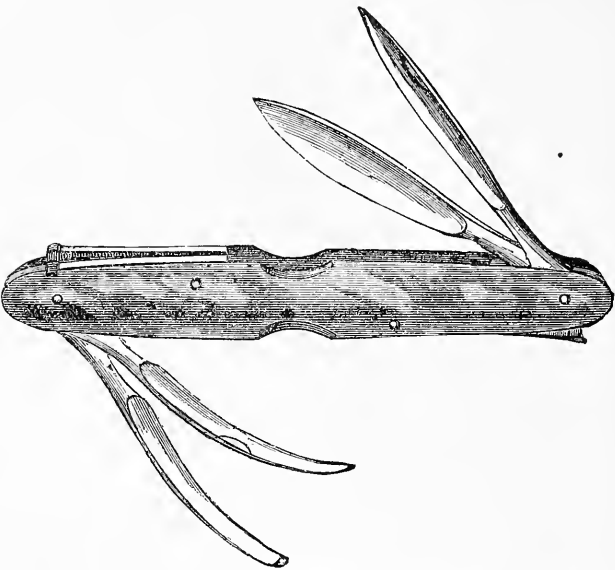
In addition to the few illustrations of Double Slide Pocket Case Knives shown on preceding page—we keep the following “Combinations” in stock :

Should you not find the exact combinations, we can put the blades wanted together at short notice.

Double Slide Catch Shell Handle	Scalpel and Gum Lancet.....	\$ 1 75
“ “ “	“ “ Sharp Curved Bistoury.....	1 75
“ “ “	“ “ Straight Sharp “	1 75
“ “ “	“ “ Hernia Knife.....	1 75
“ “ “	“ “ Exploring Needle.....	1 75
“ “ “	“ “ Tenaculum.....	1 75
“ “ “	“ “ Scalpel.....	1 75
“ “ “	“ “ Aneurism Needle.....	1 75
“ “ “	Gum Lancet “ Straight Bistoury.....	1 75
“ “ “	“ “ Tenaculum.....	1 75
“ “ “	“ “ Probe Curved Bistoury.....	1 75
“ “ “	“ “ Sharp “ “	1 75
“ “ “	“ “ Tenotome.....	1 75
“ “ “	“ “ Exploring Needle.....	1 75
“ “ “	“ “ Aneurism “	1 75
“ “ “	Tenotome “ Straight Sharp Bistoury.....	1 75
“ “ “	“ “ Sharp and Blunt “	1 75
“ “ “	“ “ Exploring Needle.....	1 75
“ “ “	“ “ Probe Curved Bistoury.....	1 75
“ “ “	“ “ Aneurism Needle.....	1 75
“ “ “	Tenaculum “ Tenotome.....	1 75
“ “ “	“ “ Exploring Needle.....	1 75
“ “ “	“ “ Sharp Curved Bistoury.....	1 75
“ “ “	“ “ “ Straight “	1 75
“ “ “	“ “ Aneurism Needle.....	1 75
“ “ “	“ “ Probe Curved Bistoury....	1 75
“ “ “	“ “ Hernia Knife.....	1 75
“ “ “	Sharp “ Probe Straight Bistoury.....	1 75
“ “ “	“ “ Straight and Curved Bistoury.....	1 75
“ “ “	“ “ “ “ “ Blunt Bistoury....	1 75
“ “ “	“ “ Curved Bistoury and Hernia Knife....	1 75
“ “ “	“ “ “ “ “ Aneurism Needle..	1 75
“ “ “	“ “ “ “ “ Exploring “ ...	1 75
“ “ “	“ “ Straight “ “ “ “	1 75
“ “ “	Probe Curved “ “ “ Aneurism “ ...	1 75
“ “ “	“ “ “ “ “ Exploring “ ...	1 75
“ “ “	Hernia Knife “ “ “ Aneurism “ ...	1 75
“ “ “	“ “ “ and Probe Curved Bistoury....	1 75
“ “ “	“ “ “ Straight Bistoury	1 75
“ “ “	Exploring and Aneurism Needle.....	1 75

POCKET CASE INSTRUMENTS.

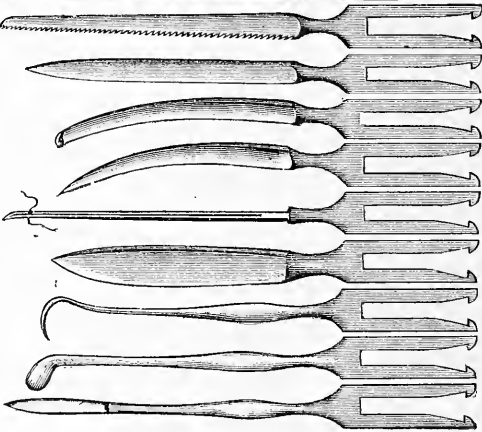
- FIG.
- | | | |
|--------|--|---------|
| *1536. | Four-blade Knife, containing Scalpel, straight sharp Bistoury, curved sharp Bistoury, curved blunt Bistoury..... | \$ 3 75 |
| *1537. | Sharp & Smith's Patent Pocket Case Knives, ten blades and two Handles, set complete..... | 9 00 |
| 1537A. | Sharp & Smith's Patent Pocket Case Knives, single..... | 75 |
| 1538. | " " " " " " showing the working and advantage of them over all others. See following page. | |



1536.



1537. Sharp & Smith's Patent Pocket Case Knives, in set. The accompanying cut fails to show one other blade, viz.: A Hernia Knife and an additional Handle. The set complete contains two Handles and ten Blades.



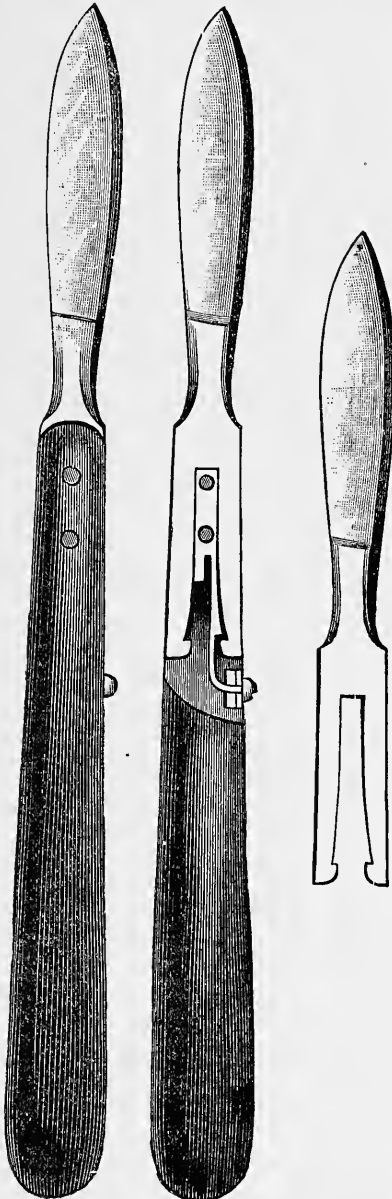
1537.

Instruments designated by a * are illustrated.

THE LATEST NOVELTY IN SURGICAL INSTRUMENTS.

THE ONLY PERFECT DETACHABLE KNIFE.

It is Self-setting, and Absolutely free from Objections. (Patent applied for.)



1538.

In this day of antiseptic operations it is but natural that attention be turned to the proverbially rusty and dirty slide catch instruments, which cannot thoroughly be cleansed. We have been assured by the most eminent physicians and surgeons of this country and Europe that our invention fills the bill, and that our detachable knives will take the place of the old style slide and spring catch instrument.

The accompanying cuts show the object of the invention, viz.: To provide an improved means of detachably fitting to a handle different blades or similar instruments, whereby one handle may answer for a number of different instruments.

The plan of using a single handle for different blades, due provision being made for securing them together and readily detaching them, has long been practised in many different ways, but this invention we conceive to be a substantially better and more convenient means for accomplishing the same object.

Physicians and Surgeons, when using such improvements as these, require a readily detachable blade which is firmly held in its place in its handle. The shape of the handle is of prime importance, and the presence of any device in the handle for securing and releasing the blade is a serious objection if it is in any way likely to form an obstruction to the free use of the handle, or of such character that it is likely to be accidentally turned or otherwise operated when it is not desired.

The requirements of a device which entirely avoids objections of the heretofore existing handles we have secured to our improvement, in which a bifurcated handle containing a spring catch operated by a push button projecting slightly out from the handle, a blade with a bifurcated shank, which when pushed into the slot in the end of the handle receives the catch therein between its ends and is locked in place thereby. This is the general plan of construction; the details are shown in the accompanying drawings.

POCKET CASE INSTRUMENTS.

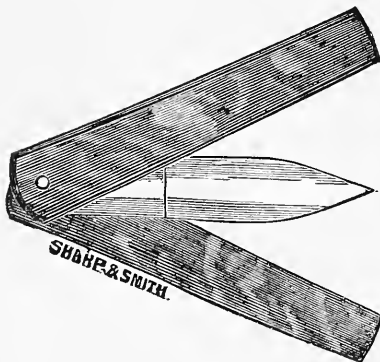
FIG.						
1539	Single Blade Slide Catch Tortoise Shell Handle	Finger Knife.....	\$	1	10	
1539-A	"	"	"	"	Gum Lancet.....	1 10
1539-B	"	"	"	"	Sharp Tenotome.....	1 10
1539-C	"	"	"	"	Blunt "	1 10
1539-D	"	"	"	"	Tenaculum.....	1 10
1539-E	"	"	"	"	Exploring Needle. . .	1 10
1539-F	"	"	"	"	Hernia Bistoury . . .	1 10
1539-G	"	"	"	"	Symes Abscess Knife. . .	1 10
1539-H	"	"	"	"	Aneurism Needle.....	1 10
1539-I	"	"	"	"	Scalpel.....	1 10
1539-J	"	"	"	"	Sharp Curved Bistoury.....	1 10
1539-K	"	"	"	"	Blunt "	1 10
1539-L	"	"	"	"	Sharp Straight "	1 10
1540	"	Plain	"	"	(any of the above).....	75
1541	"	"	"	"	H. R. Handle (any of the above).....	55
*1542	Abscess Lancets, Shell Handle.....					75
1543	"	"	H. R.	"		50
*1544	Thumb "	Shell	"	"		50
1545	"	"	H. R.	"		35
1546	"	"	Evans' Genuine.....			75
*1547	Vaccinating Lancet with Steel Comb.....					75
1548	"	"	Spear Point.....			60
1549	"	Combs.....			20 to	75
1550	Lancet Cases, Leather, one hole.....					25
1551	"	"	two "			50
*1552	Seton Needle, Shell Handle.....					75
*1553	Exploring Needles, Ebony Case.....					30
1554	"	"	Shell Handle.....			75
1555	"	"	Ivory Case.....			35
	Surgeon's	"	(see index).....			
	Post's and Buck's Needles, Shell Handle.....				each	1 75



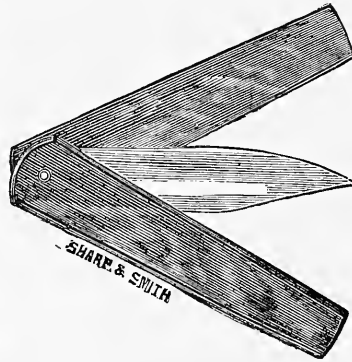
1552



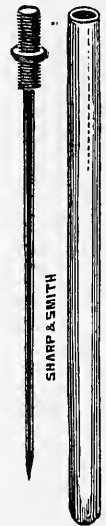
1547



1544



1542

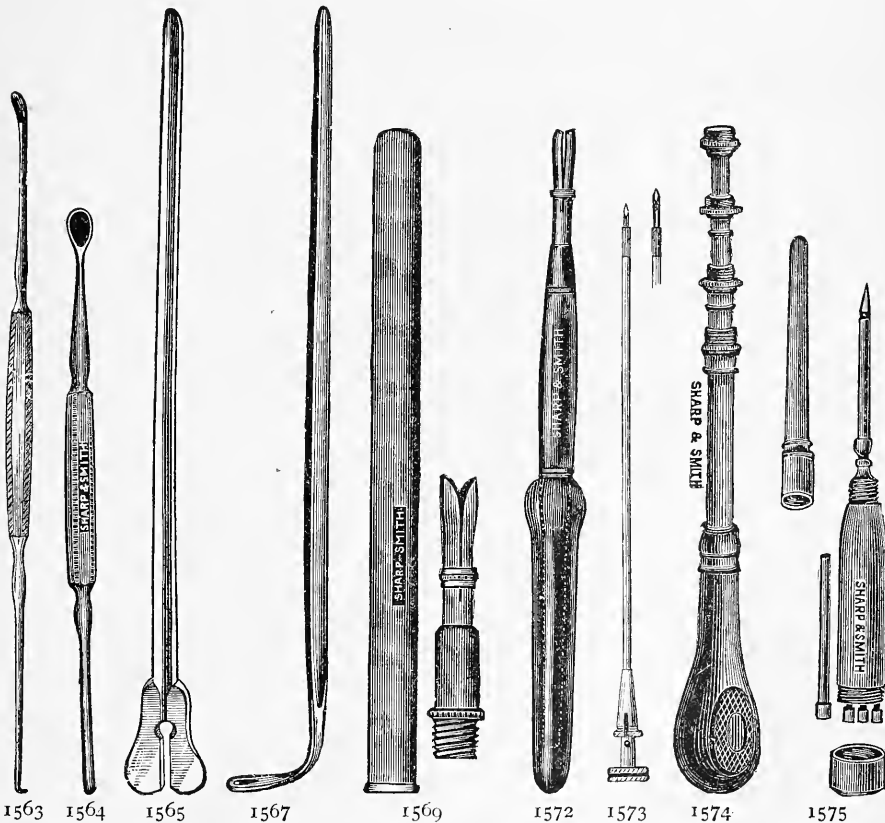


1553

POCKET CASE INSTRUMENTS.

FIG.		
1556	Finger Saws, shell handle, slide catch.....	\$ 1 50
1557	“ “ “ “ without catch.....	1 10
*1558	“ “ “ “ Lewis folding.....	1 85
1559	Spatulas and Tongue Tie.....	45
1560	“ “ Folding.....	75
1561	“ “ and Elevator, Dugas'.....	75
1561A	“ “ Pocket Case.....	40
1562	Greene's Double Tenaculum and Operating Hook.....	1 25
*1563	Gross' Ear Spoon and Hook.....	55
*1564	“ “ “ “ Spud.....	75
*1565	Director and Tongue Tie, German silver.....	45
1566	“ “ “ “ Ear Spoon.....	55
*1567	“ “ “ “ Aneurism Needle.....	45
1568	Caustic Holders, short, silver.....	1 10
*1569	“ “ “ “ medium, silver.....	1 50
1570	“ “ “ “ hard rubber, small.....	45
1571	“ “ “ “ “ “ medium.....	60
*1572	“ “ “ “ “ “ silver burner.....	75
*1573	Exploring Trocar, Silver Canula.....	1 00
*1574	Nested Trocars, 3 in set.....	3 50
*1575	Southey's Set of Trocars and Canulas for Anasarca, in case.....	2 50

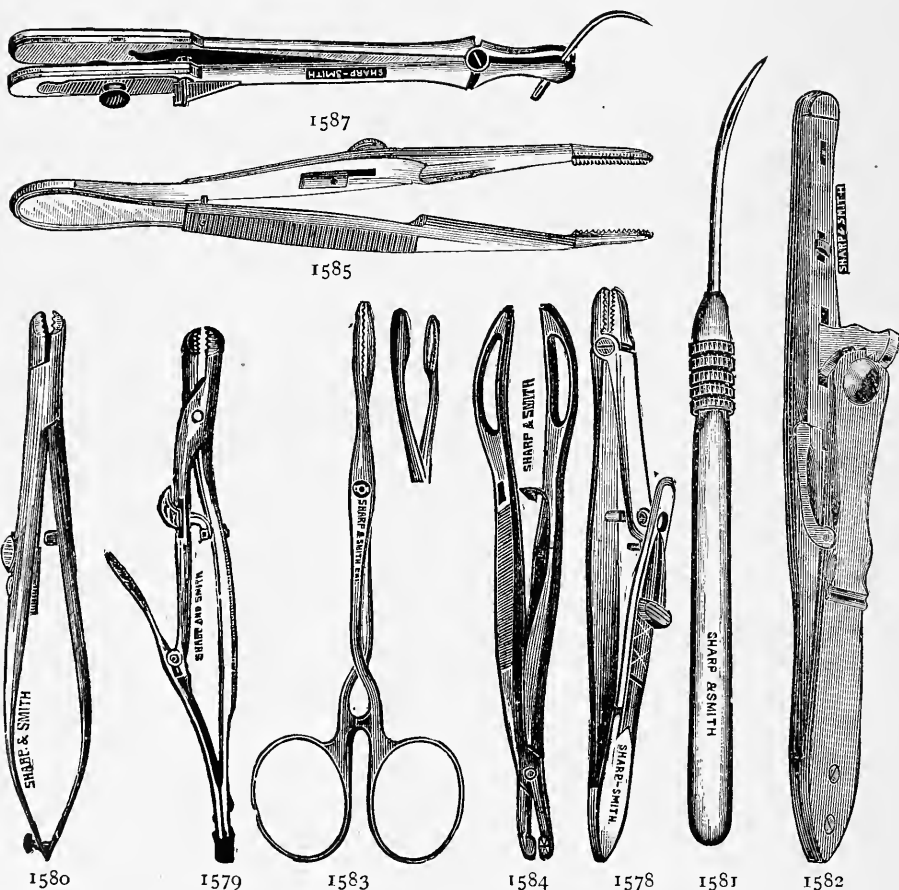
For other Trocars, see index.



All Instruments designated by a * are illustrated.

POCKET CASE INSTRUMENTS.

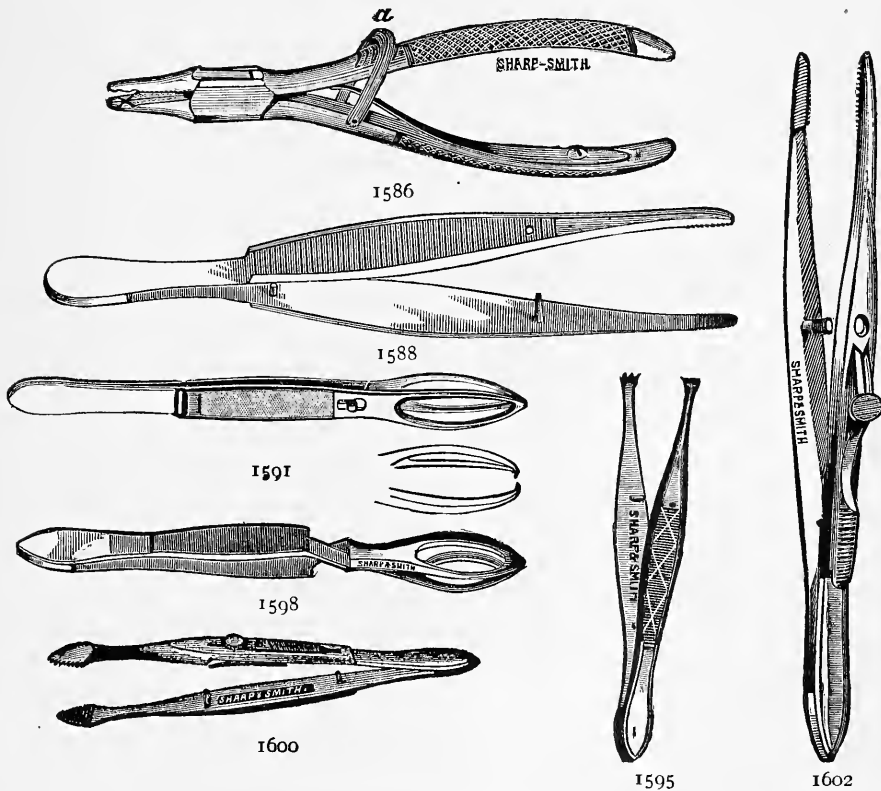
FIG.			
1576	Probes, silver, per pair.....	\$	50
1577	“ plated, “ “		35
(For other Probes, see index.)			
*1578	Needle Holding Forceps, Whitney's.....	3	25
*1579	“ “ “ Sand's.....	3	00
*1580	“ “ “ Prout's.....	2	60
*1581	“ “ “ Parker's.....	1	50
*1582	“ “ “ Hagedorn's, pocket case style.....	6	50
*1583	“ “ “ French snap	1	25
*1584	“ “ “ and Artery combined, fenestrated....	2	00
*1585	“ “ “ and Torsion combined.....	1	75
*1586	“ “ “ Heuel's.....	3	00
*1587	“ “ “ Sharp & Smith's.....	2	50



All instruments designated by a * are illustrated.

POCKET CASE INSTRUMENTS.

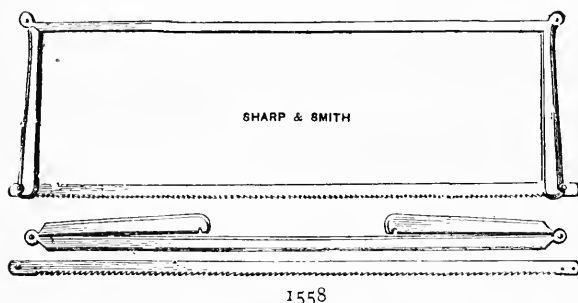
FIG.			
*1588	Artery Forceps, plain.....	\$	40
1589	" " Liston's plain.....		85
1590	" " " spring catch.....	1	25
*1591	" " Fenestrated spring catch.....	1	50
1592	" " " slide ".....	1	75
*(1584)	" " " " and Needle Holder...	2	00
*(1585)	" " Slide Catch and Needle.....	1	75
1593	" " Danforth's.....	2	25
*1594	" " McLean's.....	1	25
*1595	" " Owen's.....	1	25
1596	" " Hamilton's Fenestrated Spring Catch.....	1	75
1597	" " " Slide ".....	2	00
	" " Pratt's (see page 319.).....	1	75
	" " " new (see page 319.).....	2	50
*1598	" " Cross Action.....	1	50
1599	" " Shield's.....	1	50
*1600	" " Andrews'.....	2	00
1601	" " Lankford's.....	1	10
*1602	" " Frickes'.....	1	80



All instruments designated by a * are illustrated.

FORCEPS.

FIG.					
1603	Artery Forceps,	Bigelow's	.....	\$	2 75
1603A	"	"	Langenbeck's	.....	1 10
1604	"	"	Dugas'	.....	1 15
*1605	"	"	Cleborne's & Tissue	.....	2 50
	"	"	Frank's Artery and Dressing	.....	1 50
	"	"	Lawson Tait's, snap catch	.....	2 00
	"	"	Thomas'	"	1 85
	"	"	Pean's	"	1 25
	"	"	Little's	"	2 50
	"	"	Wylie's	"	1 50
	"	"	Wood's	"	1 50
See page 315.					
1606	Phelps' Torsion Forceps,	spring catch	.....		3 00
*1607	Adams' Splinter Forceps	.....			75
*1608	Little's	"	.....		75
*1609	Polypus Dressing	" plain	.....		1 00
*(1583)	"	"	Pean's (page 315.)	.....	1 25
1610	Bone Cutting Forceps,	small	.....		2 50
1611	Ann Arbor Dressing Forceps	.....			1 10



1558



1603-A



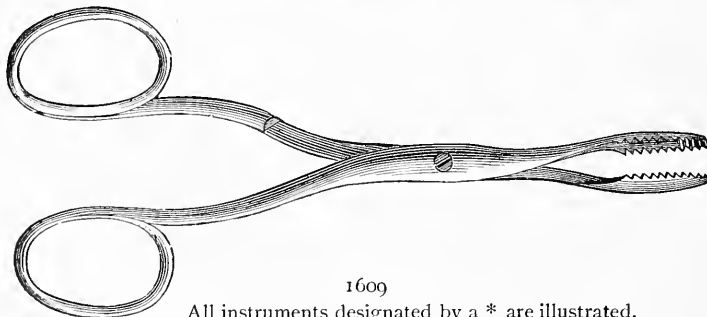
1605



1607



1608



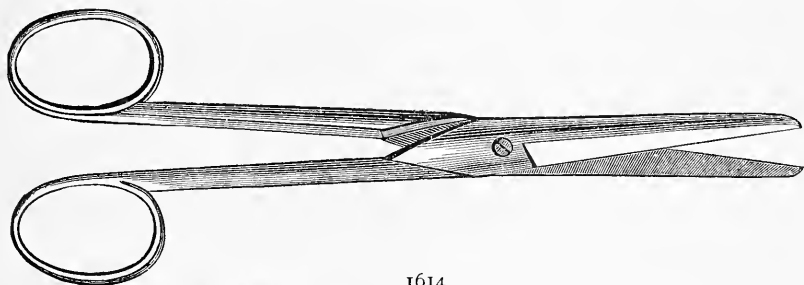
1609

All instruments designated by a * are illustrated.

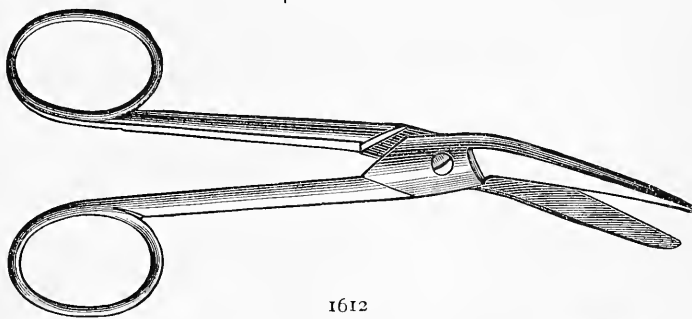
SCISSORS.

FIG.

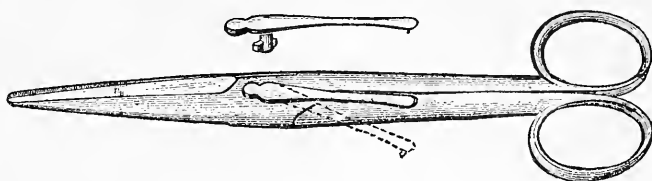
*1612	Angular P. C. Scissors.....	\$ 85
*1613	Chas. N. Dixon Jones' Scissors.....	2 00
*1614	Straight P. C. Scissors, long.....	85
1615	“ “ “ medium.....	75
1616	“ “ “ 1 point probed.....	1 00
1617	Gray's Straight P. C. Scissors, open ring.....	1 00
*1618	Curved on flat P. C. Straight Scissors.....	1 00
1619	Folding Straight Scissors.....	1 15
*1620	Scissors and Forceps combined.....	1 50



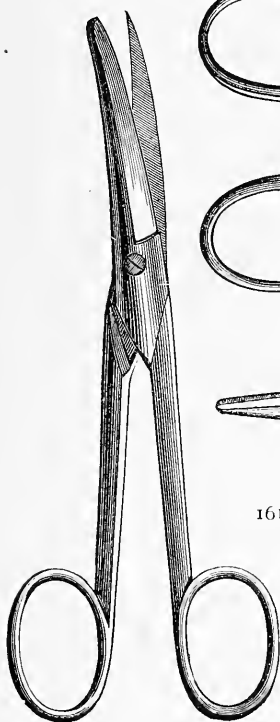
1614



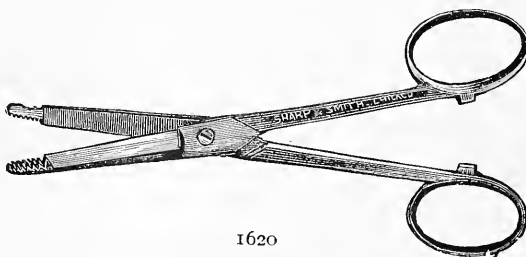
1612



1613—For description of these scissors see Fig. 1240, page 313.



1618



1620

All instruments designated by a * are illustrated.

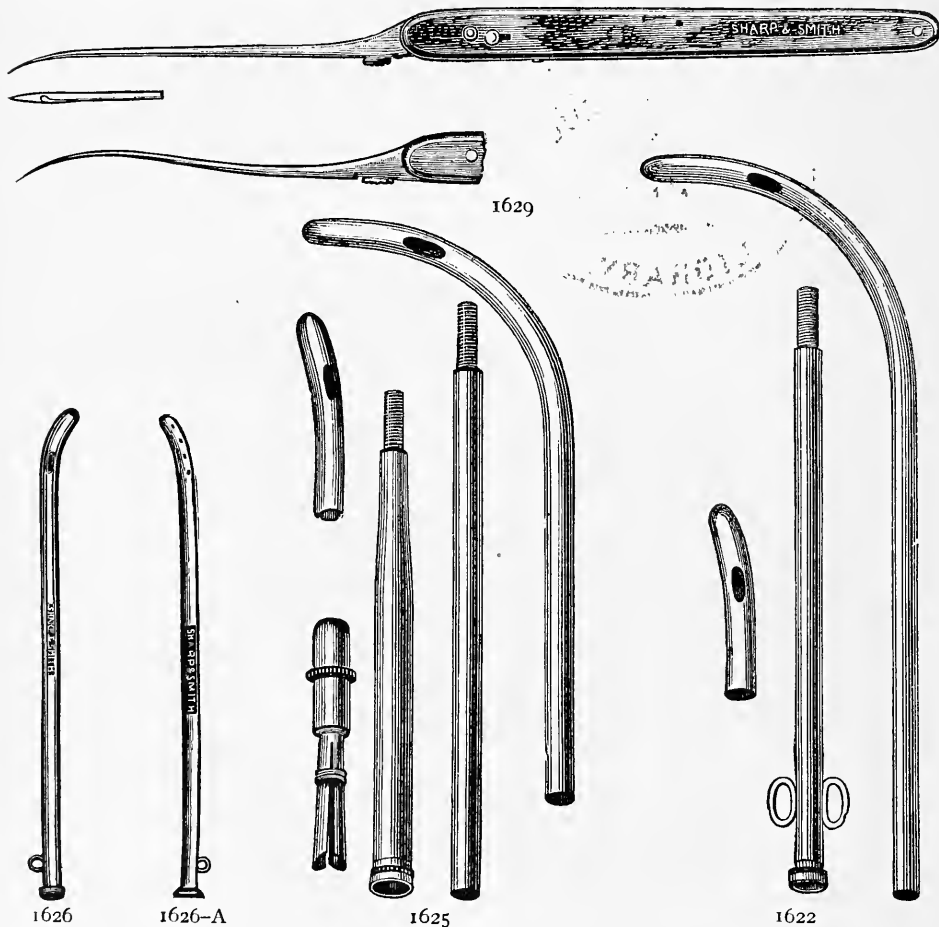
POCKET CASE INSTRUMENTS.

FIG.					
1621	Catheters—Combined	Male and Female.....			\$1 00
*1622	"	"	"	"	plated..... 1 00
1623	"	"	"	"	silver..... 1 85
1624	"	"	"	"	Parker's, with Caustic Holder, plated..... 1 75
*1625	Catheters—Combined	Male and Female, Parker's, silver.....			3 25
*1626	Catheters, silver, female.....				75
*1626A	"	"	"	fine holes in end.....	75
1627	"	plated	"	.....	35
1628	"	with Caustic Holder, Vaccinating Needle and Exploring Trocar, plated.....			2 50

All of our Metal Catheters have plugged ends, which prevents the secretive matter from being held, and disease transmitted from one patient to another.

*1629 Rivedon's Pocket Case Perineum Needle..... \$3 75

This needle was introduced in this city by Dr. R. Ludlam of Chicago, who brought it from France, and he uses it constantly. We recommend it to every practicing physician.



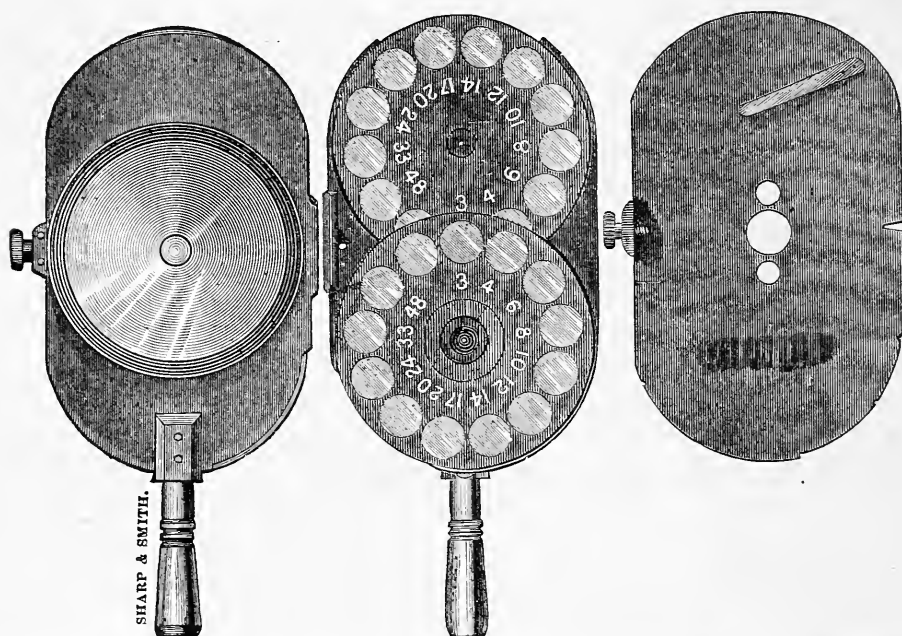
EYE INSTRUMENTS.

FIG.				
*1630	Ophthalmoscopes, Loring's	Double Disk	.....	\$30 00
*1631	"	" Single Disk	.....	20 00
1632	"	" 7-Lens	.....	6 50
1633	"	" 12 "	.....	12 00
*1634	"	" 15 " Student	.....	15 00
1635	"	" 16 " Tilting Mirror	.....	20 00
1636	"	" 24 " " "	.....	24 00
1637	"	" 20 " " "	.....	22 50
1638	"	" 15 " 4-Inch Quadrant Tilting Mirror	.....	28 00
1639	"	Knapp's 12-Lens, Single Disk	.....	15 00
*1640	"	" 24 " " "	.....	20 00
1641	"	" Double Disk	.....	28 00
1641A	"	" " " "	.....	28 00
1641B	"	" " " "	.....	28 00
*1641C	"	" Metric System	.....	30 00
1642	"	Liebreich's best	.....	3 00
1643	"	Allen's	.....	2 75
1644	"	Graefe's	.....	4 85
1645	"	Nacht's	.....	5 25
1647	"	Binocular	.....	22 50
1648	"	Polyclinic, 23 Lenses	.....	21 00



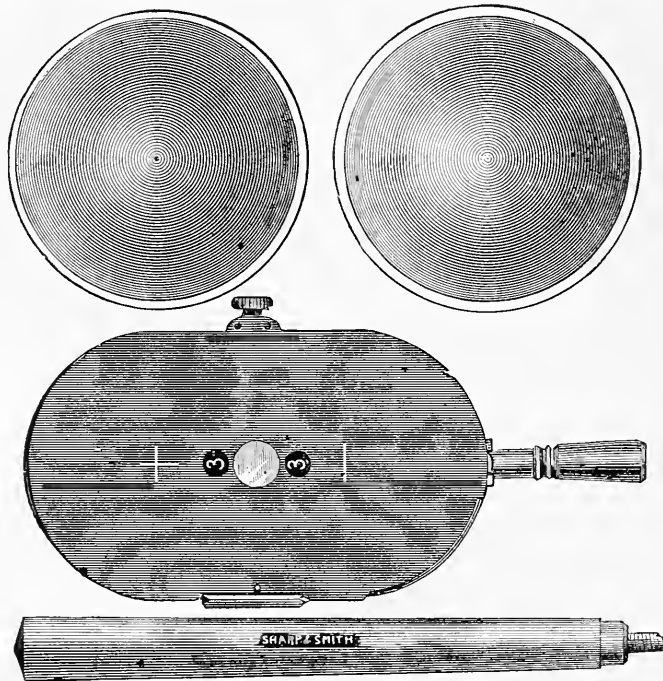
Application of the Ophthalmoscope.

OPHTHALMOSCOPES.



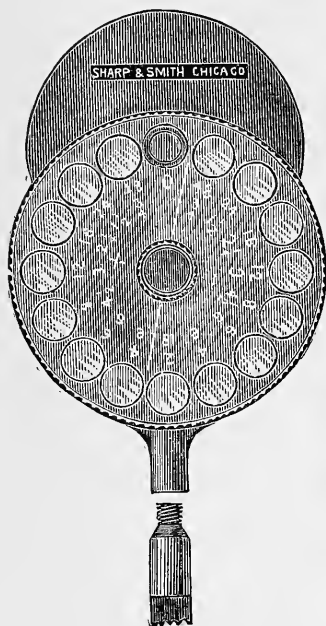
1641-A. Knapp's Double Disk Ophthalmoscope (Front View.)

1641. Knapp's Double Disk Ophthalmoscope, Lense, Disks and Covers (removed), \$35.00



1641-B. Back View of Knapp's Ophthalmoscope and Magnifying Lenses (Handles Detached.)

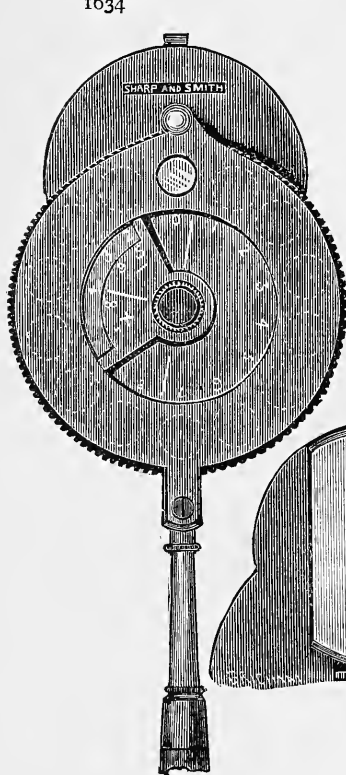
OPHTHALMOSCOPES.



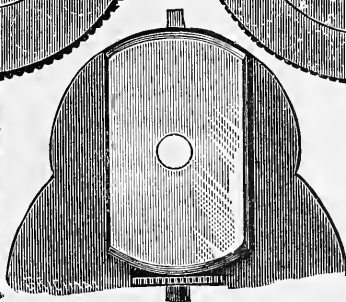
1634



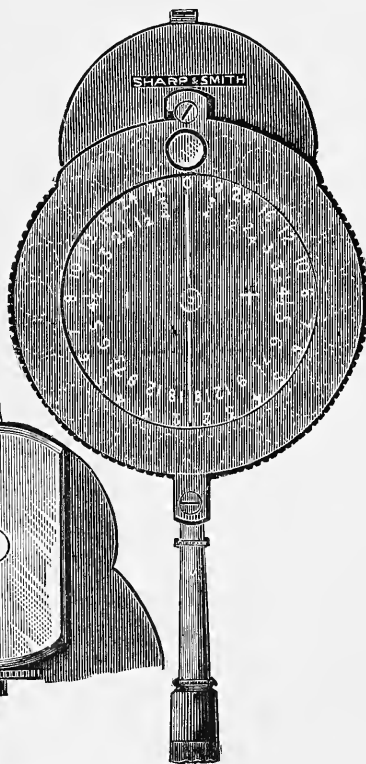
Case for Loring's Ophthalmoscopes. This Case is included in price of Ophthalmoscopes. Handles and two Lenses are also included.



1630

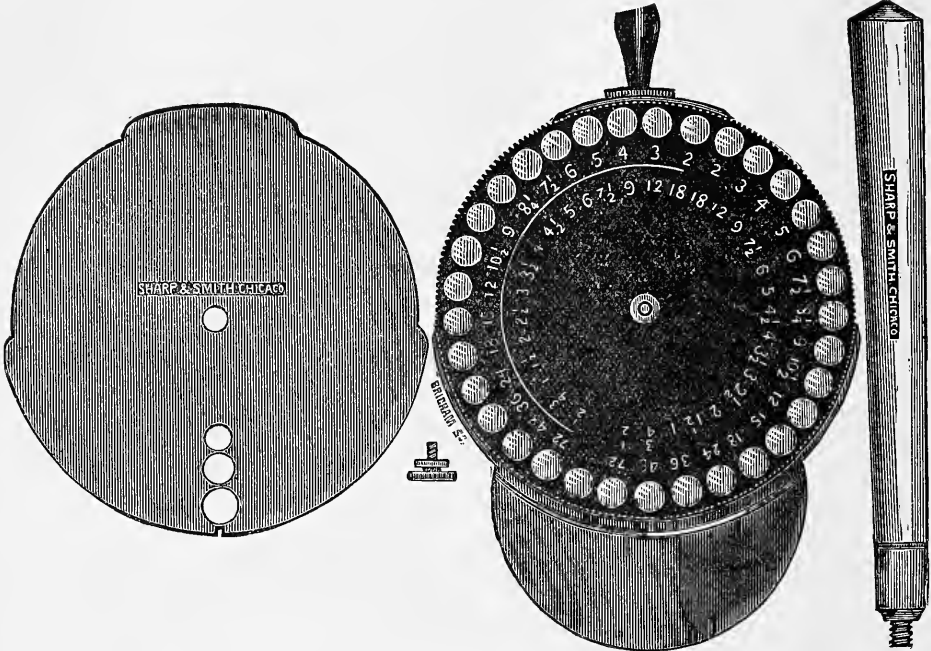


Back View.

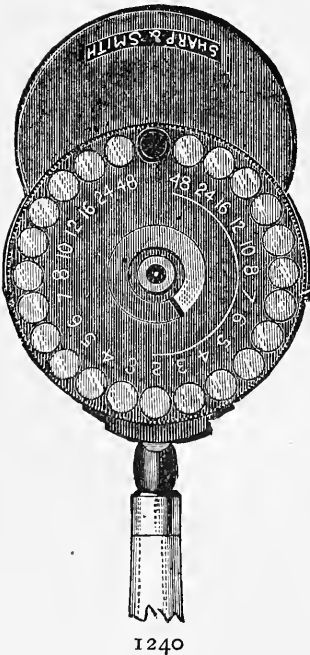


1631

OPHTHALMOSCOPES.



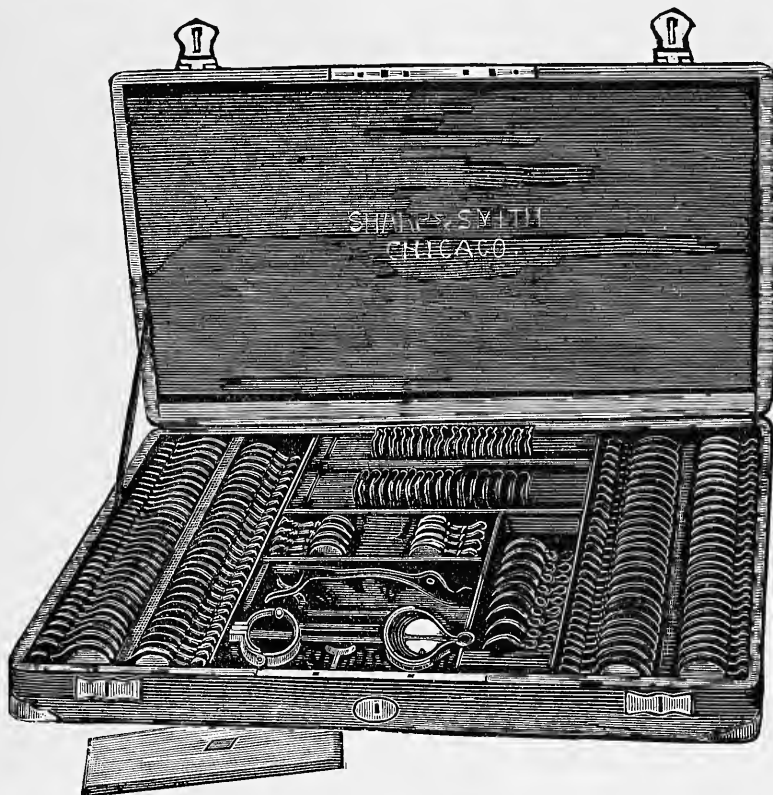
1641-C.



1240

All Ophthalmoscopes are put in Velvet Line Morocco Covered Cases, including two Lenses not shown in any of the illustrations.

FIG.		
*1649	Nachet's Complete Series of Trial Glasses	\$95 00
1650	Loring's Set of Trial Glasses, containing 24 pairs of cylindrical and spherical glasses, a holder, and necessary test types	14 00
1651	Snellen's Series Test Types, bound	2 50
1652	German Trial Frame	3 00
1653	Nachet's " "	1 50



1649

Nachet's, with complete series of trial glasses, comprising 30 pairs each of spherical, convex and concave lenses, from $1\frac{3}{4}$ to 148 inches focus; 18 pairs each of cylindrical, convex and concave lenses, from 6 to 148 inches focus; 10 prisms of angles from 2 to 20 degrees; 4 plain glasses, of assorted colors; 1 plain white glass; 1 half ground glass; 2 metal discs, with slits of assorted widths, 1 each metal discs, solid and with central perforation, all mounted in *gold* and *silver* plated metal rims, with handles; 1 adjustable spectacle frame, with graduated revolving fittings, for holding the various lenses; 1 adjustable lens holder, of horn. In elegant velvet lined case.

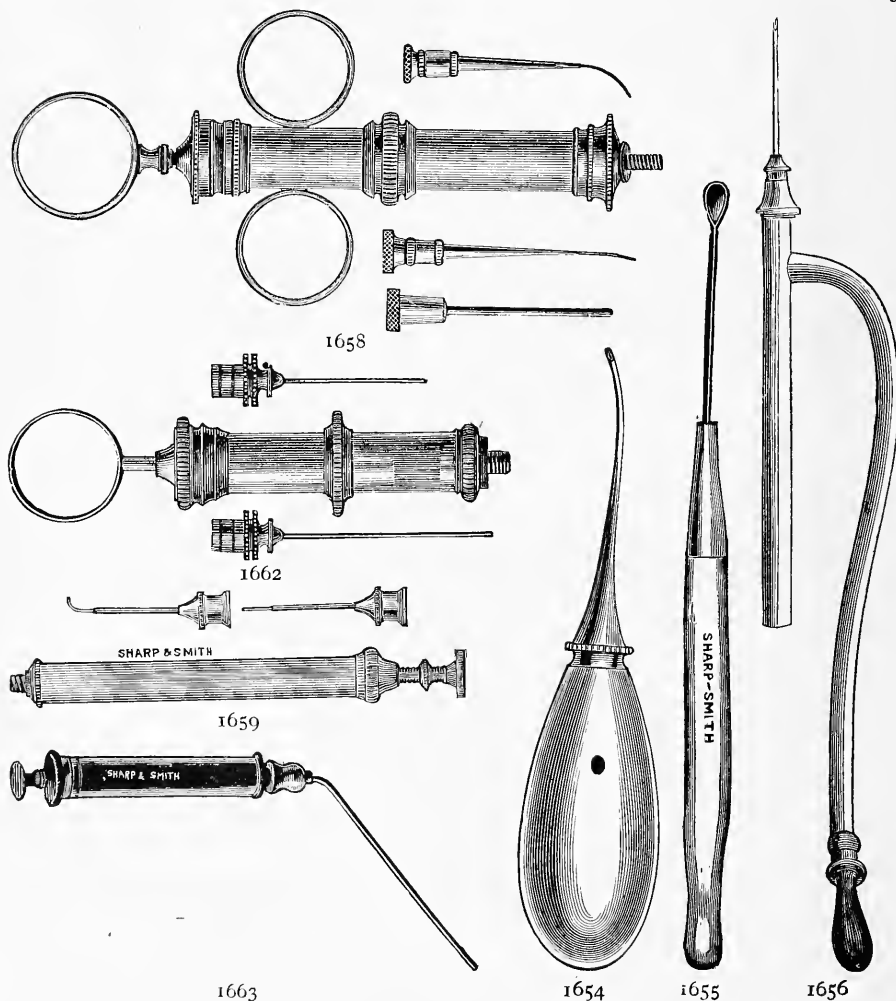
We have a very complete stock of Trial Cases ranging in price from \$14 to \$100, and can furnish same at lower prices than any one in the city. Write for contents and prices.

WE IMPORT THESE GOODS DIRECT.

All instruments designated by a * are illustrated.

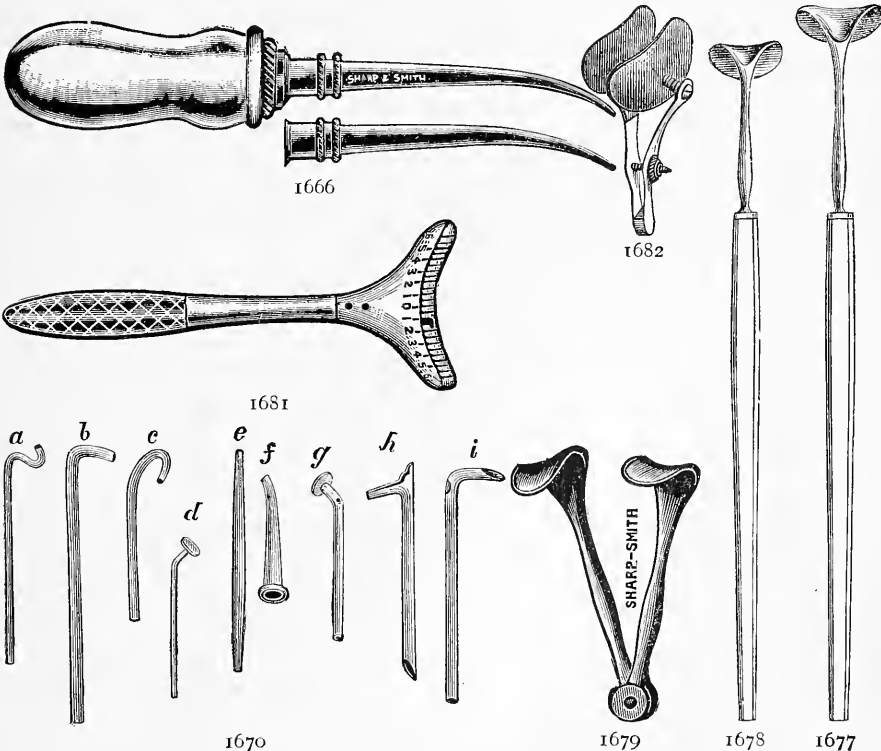
EYE INSTRUMENTS.

FIG.		
*1654	Blauchett's Instrument for exhausting soft cataract.....	\$1 75
*1655	Hollow Scoop for soft cataract.....	3 00
*1656	Bowman's Instrument for exhausting soft cataract.....	3 25
1657	Anel's Silver Lachrymal Syringe, with silver and gold points...	9 00
*1658	" " " " H. R. with gold points.....	3 50
*1659	" " " " metal barrel, silver points in case.....	3 00
1660	Anel's White Metal Lachrymal Syringe.....	1 75
1661	" Glass Barrel " ".....	3 50
*1662	Agnew's Lachrymal Syringe.....	3 75
*1663	McFarlan's Hard Rubber Lachrymal Syringe.....	2 50
1664	Hard Rubber Lachrymal Syringe, one needle.....	1 25
1665	" " " " " silver.....	2 50
*1666	Dr. J. Austin Dunn's Lachrymal Syringe, No. 1, blunt steel needle.....	1 15



EYE INSTRUMENTS.

FIG.			
1667	Dr. J. Austin Dunn's Lachrymal Syringe, platinum needle.....	\$ 1 50	
1668	" " " " " gold needle.....	2 75	
1668A	Steel Needle for above.....	75	
1668B	Platinum Needle for above.....	1 25	
1669C	Gold " " " " ".....	2 75	
*1670	Lachrymal Styles, A, hard rubber.....	40	
*1670	" " B, lead.....	20	
*1670	" " C, E, Williams', each.....	35	
*1670	" " D, silver.....	35	
*1670	" " F, canulated silver.....	40	
*1670	" " G, " ".....	40	
*1670	" " H, " ".....	40	
*1670	" " I, " ".....	40	
1671	" " in gold.....	\$1 50 to 3 50	
1672	Silver Lachrymal Canula.....	40	
1673	Wecker's " ".....	1 15	
1674	Gold " ".....	\$2 00 to 3 50	
1675	Gensole's " " for cauterizing the nasal duct.....	2 25	
1676	Liebold's Subpapperal Syringe.....	1 10	
*1677	Desmarre's Eyelid Retractor, large.....	1 25	
*1678	" " " small.....	1 25	
*1679	" " " jointed for pocket.....	1 50	
1680	Noyes' " ".....	1 50	
*1681	Ivory Strabometer.....	1 65	
*1682	Stokes' Eyelid Compressor.....	2 00	



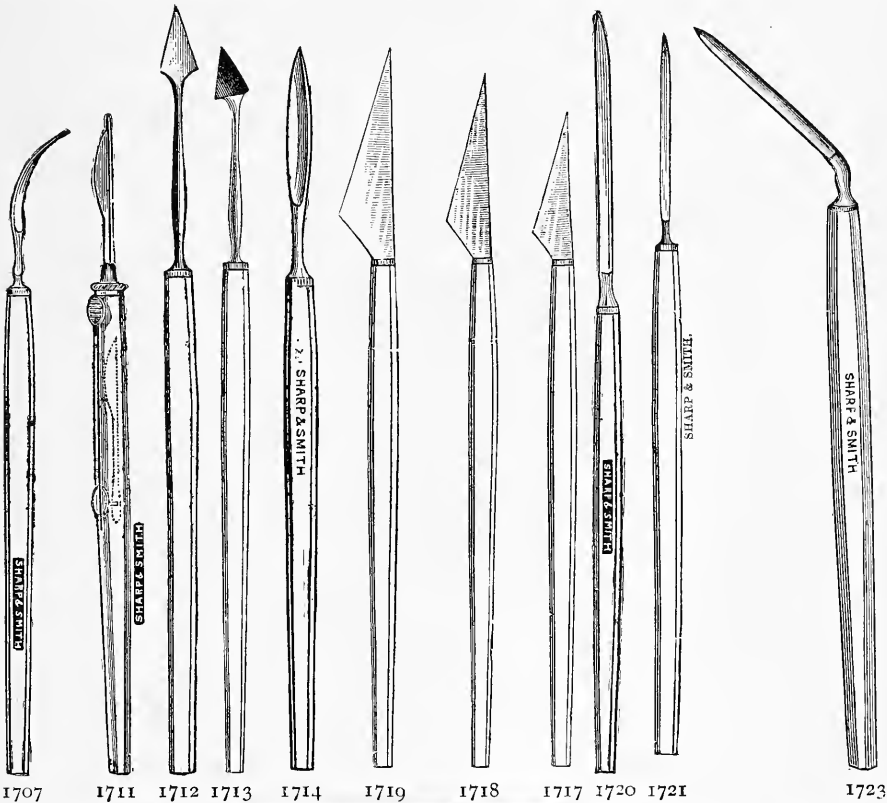
EYE INSTRUMENTS.

FIG.		
*1683	Dix's Spud, half round.....	\$ 1 00
*1684	" " flat.....	1 00
1685	" " and Curette.....	1 85
*1686	" " and Exploring Needle.....	2 00
1687	Walton's Foreign Body Gouge.....	1 10
1688	Desmarre's Trocar, long point.....	1 25
*1689	" " Paracentesis Trocar, short point.....	1 25
1690	Wecker's Iridectomy Instruments.....	9 00
*1691	Graefe's Tractor.....	1 20
1692	Knapp's Cystotome.....	1 15
*1693	Desmarre's ".....	1 10
1694	" " and Curette.....	1 85
*1695	" " and Silver Lens Scoop.....	1 85
*1696	Pocket Gouge and Spatula in Sliding Case.....	2 00
*1697	" Needle and Spud " " ".....	2 00
*1698	Noyes' Canaliculous Knives, flexible shank.....	1 15
*1699	" Jointed Canaliculous Knife.....	3 00
*1700	" Stilling's ".....	1 30
*1701	Stilling's Canaliculous Knife.....	1 10
*1702	Agnew's ".....	1 25



EYE INSTRUMENTS.

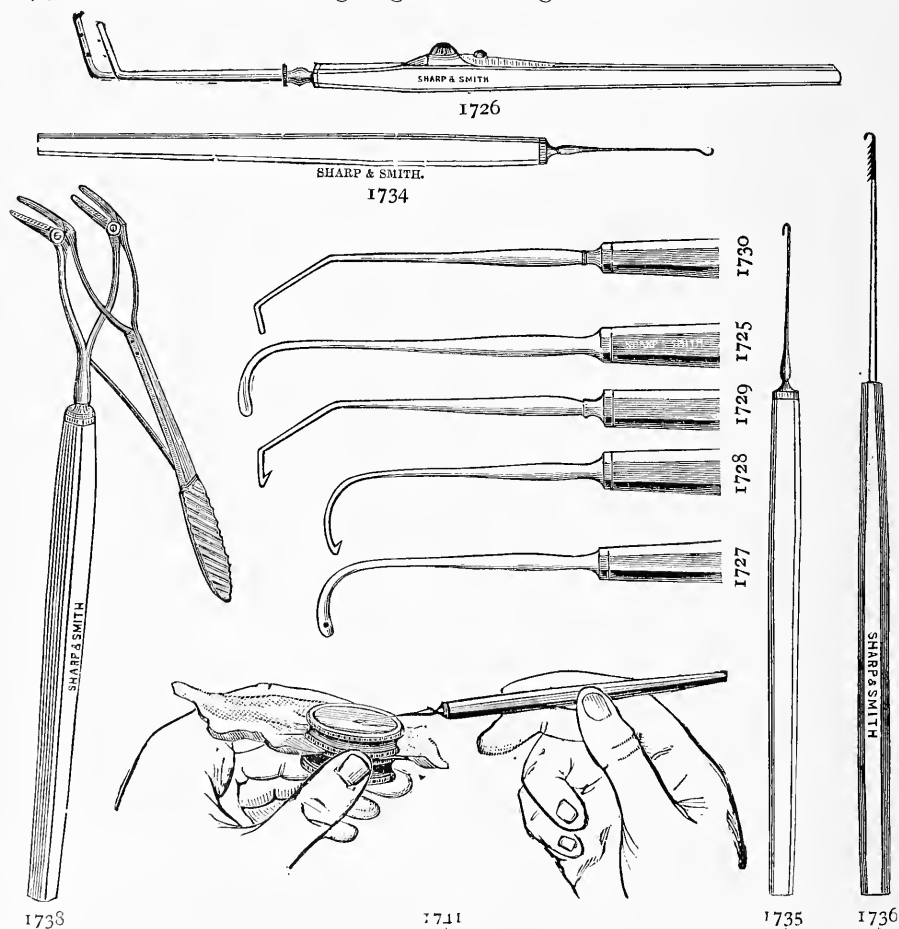
FIG.			
1703	Weber's Straight Canaliculous Knife.....	\$	1 10
1704	“ Half Curved Canaliculous Knife.....		1 30
1705	“ Full “ “.....		1 30
1706	Bowman's Canaliculous Knife, sharp.....		1 25
*1707	“ “ “ blunt.....		1 25
1708	Angular “ “.....		1 25
1709	Leibrich's “ “.....		1 25
1710	Beaumont's Concealed “ “.....		6 00
*1711	Greenslade's “ “.....		3 00
*1712	Jaeger's Keratome, straight.....		1 15
*1713	“ “ angular.....		1 25
*1714	Scalpel, large.....		1 10
1715	“ medium.....		1 10
1716	“ small.....		1 10
*1717	Beers' Cataract Knife, large.....		1 10
*1718	“ “ “ medium.....		1 10
*1719	“ “ “ small.....		1 10
*1720	Graefe's “ “.....		1 10
*1721	“ “ “ mod. by Noyes.....		1 15
1722	“ “ “ convex edge.....		1 15
*1723	Baeder's “ “ angular, right or left.....		1 50
*1724	Agnew's Iridectomy Knife.....		1 30



1724

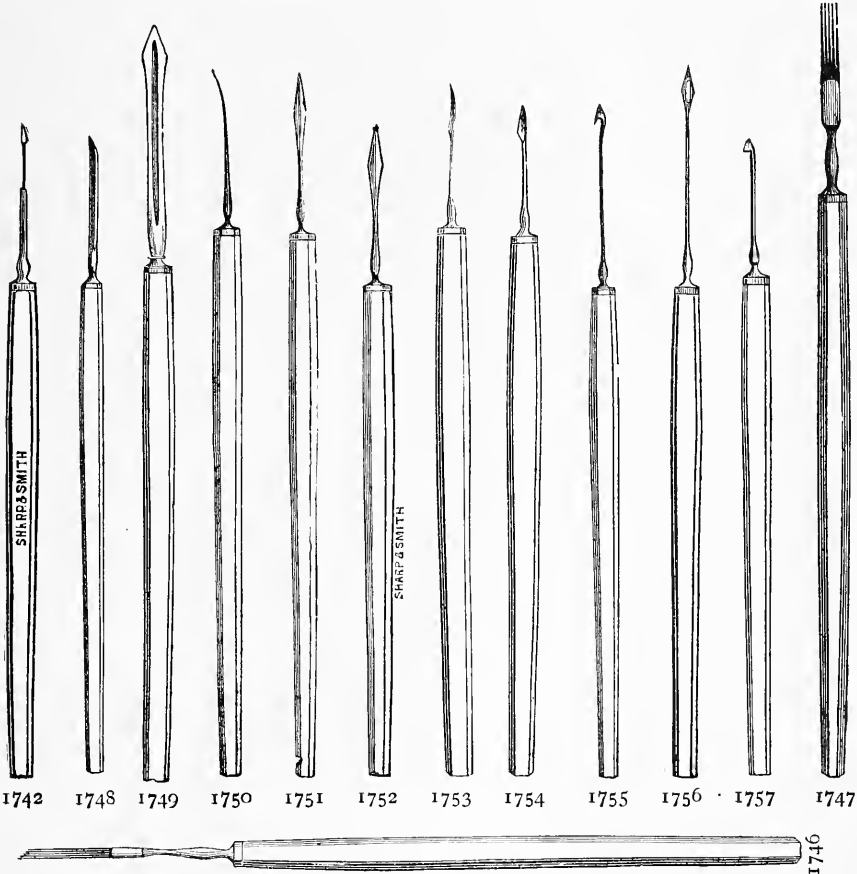
EYE INSTRUMENTS.

FIG.			
1724A	Strabismus Hooks, large.....	\$	90
*1725	“ “ small.....		90
*1726	“ “ Wecker's double.....	3	00
*1727	“ “ with eye.....	1	00
*1728	“ “ McDonald's barbed.....	1	20
*1729	“ “ Taylor's “.....	1	20
*1730	“ “ “.....	1	00
1731	“ “ Bistoury.....	1	75
1732	Ball's Double Hooks, with slide.....	2	25
1733	Knapp's Foreign Body Hooks, silver.....	1	50
*1734	Tyrrell's Sharp Hooks.....		90
*1735	“ Blunt “.....		90
*1736	Noyes' Barbed Hook.....	1	15
1737	Ophthalmostats, three pointed.....	1	10
*1738	“ Jaeger's.....	6	00
1739	“ Noyes'.....	1	65
1740	Pamard's Pique for fixing the eye.....	1	15
*1741	Test Drum for testing edges of cutting instruments.....		60



EYE INSTRUMENTS.

FIG.		
*1742	Bowman's Stop Needle.....	\$6 10
1743	Iris Needle, plain.....	1 10
1744	" " De La Roosa's.....	1 00
1745	Couching Needle.....	1 00
*1746	Baeder's Tattooing Needle.....	1 50
*1747	Agnew's ".....	1 25
*1748	Grooved ".....	1 25
*1749	Walton's " " grooved.....	1 25
*1750	" " Round Pointed Needle.....	1 50
*1751	Paracentesis Needle, broad.....	1 00
*1752	" " very broad.....	1 00
*1753	Hayes' Knife ".....	1 10
*1754	Sharp & Smith's Knife Needle.....	1 10
*1755	Luzardi's Hooked ".....	1 15
*1756	Levis' Needle, with eye.....	1 20
*1757	Critchett's Hooked Needle.....	1 10
1758	Caron de Villard's Needle.....	1 00
1759	Angular Needle.....	1 00
1760	Needle and Spud, metal case.....	2 00
1761	" " " hard rubber case.....	1 75
1762	" " " ivory case.....	2 25



All instruments designated by a * are illustrated.

EYE INSTRUMENTS.

FIG.			
*1763	Cataract Needles, Beers', straight.....	\$	1 00
1764	" " hollow curved.....	I	30
*1765	" " Noyes', narrow.....	I	00
*1766	Decision " narrow.....	I	00
1767	" " broad.....	I	00
1768	" " long.....	I	00
1769	" " stop.....	I	10
1770	Depression Needles, large curved.....	I	15
	Eye Needles, per dozen.....	I	00
	" Silk, see index		
*1771	Plain Iris Knife.....	I	10
1772	Broad " ".....	I	10
*1773	Stop " ".....	I	10
*1774	Double Edge Iris Knife.....	I	50
*1775	Sickle Shape " ".....	I	25
1776	Concave Edge, Secondary Knife.....	I	20
1777	Convex " ".....	I	20
1778	Desmarre's Angular Secondary Knife....	I	25
*1779	" Scarificator.....	I	10
1780	Critchett's Concave Lens Scoop.....	I	30
1781	" Flat " ".....	I	25
1782	Shell Lens Scoop.....	I	35
*1783	Hard Rubber Lens Scoop.....		75



1763

1765

1766

1771

1773

1774

1775

1779

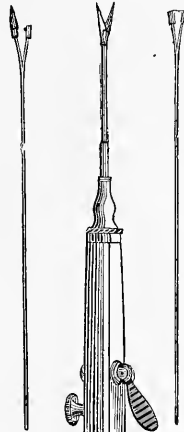
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1784

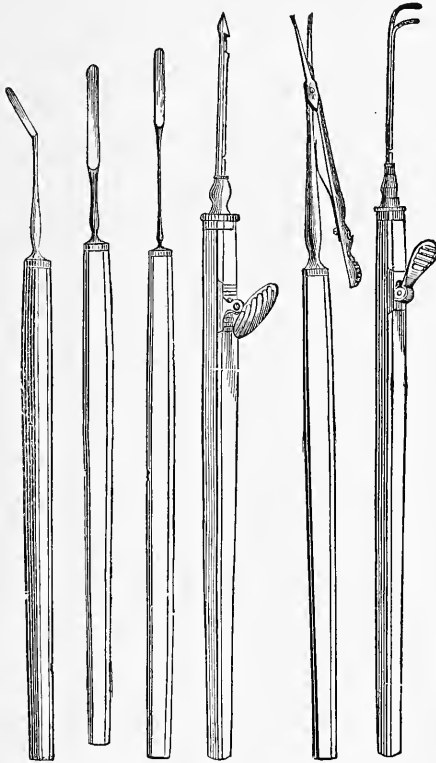
1785

EYE INSTRUMENTS.

FIG.			
*1784	Graefe's Lens Scoop.....	\$	1 25
*1785	Fenestrated Lens Scoop.....	1	25
1786	Lens Scoop and Spud.....	1	85
1787	Hard Rubber Spoon.....		50
*1788	Desmarre's Knife for enlarging the cornea section.....	1	15
*1789	“ Short Knife for enlarging the cornea section.....	1	15
*1790	Angular Knife for enlarging the cornea section, R. or L...each	1	25
1791	Strabismus Bistoury, curved.....	1	75
1792	“ “ straight.....	1	10
1793	Jaeger's Bistoury Cache....	6	00
1794	Parker's Fistula Lachrymalis knife	1	25
*1795	Wilde's Canulated Forceps.....	9	00
*1796	“ “ “ Scissors, and Forceps Needle, in 1 handle.	11	25
*1797	Wilde's Canulated Needle.....	9	00
*1798	Noyes' Iris Scissors.....	3	00
1798-A	“ “ “ delicate points.	4	50
*1799	Straight Iris Scissors, light....	1	10
1800	“ “ “ heavy....	1	15
*1801	Curved on flat Iris Scissors, light.	1	10
1802	“ “ “ “ heavy	1	15



1796



1790

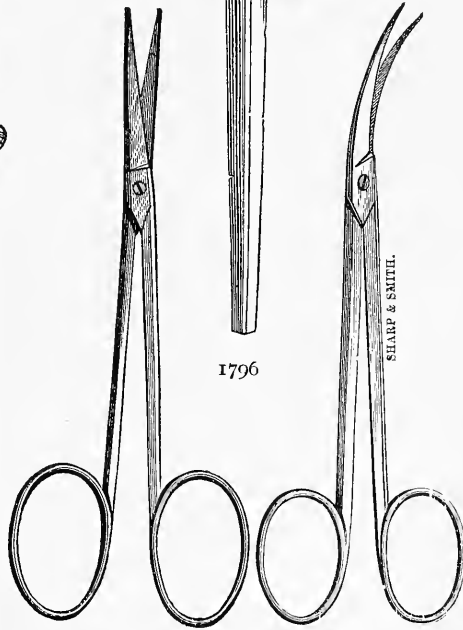
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1789

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1798

1795



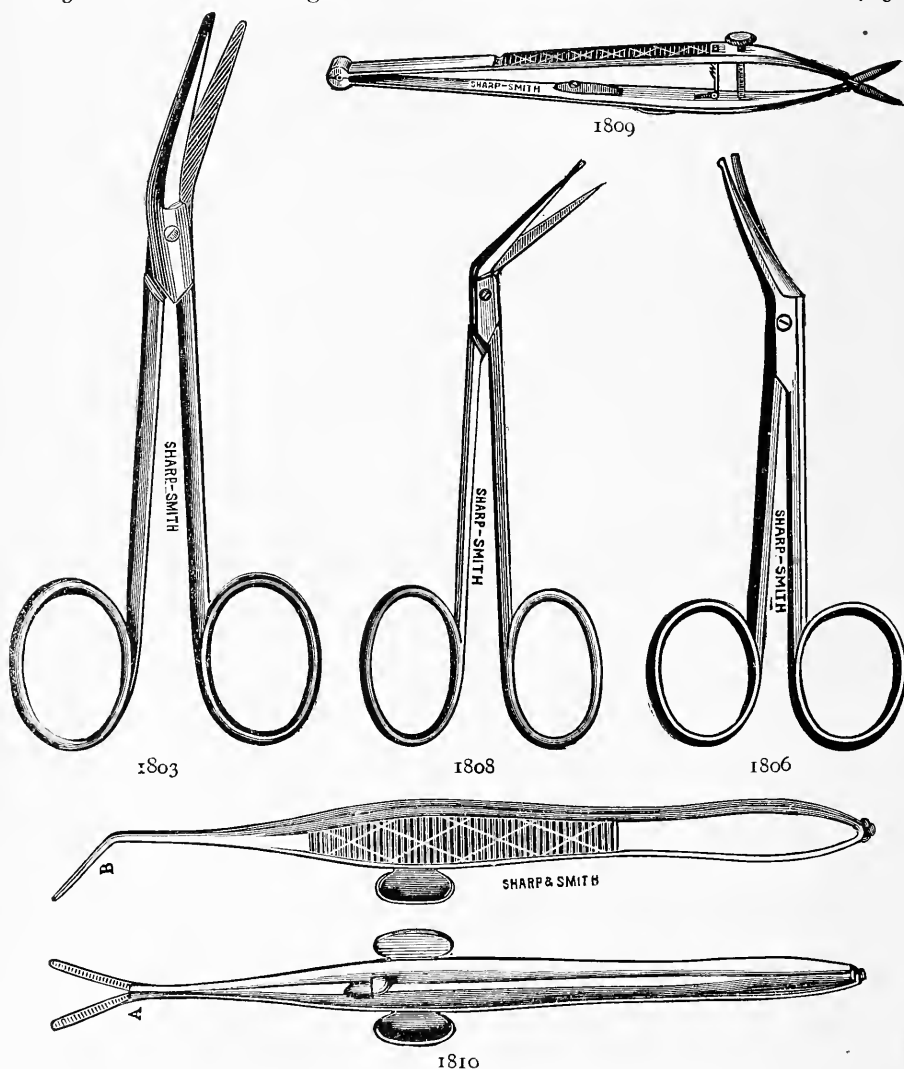
1799

1801

Instruments designated by a * are illustrated.

EYE INSTRUMENTS.

FIG			
*1803	Scissors	Strabismus, angular.....	\$ 1 10
1804	"	" curved on flat.....	1 10
1805	"	" Noyes'.....	3 00
*1806	"	" Hobby's curved.....	2 25
1807	"	Conjunctiva.....	1 10
*1808	"	Maunoir's Canaliculous, one blade, probe-pointed....	1 50
*1809	"	Dudley's Cataract.....	7 50
*1810	"	Wecker's Iridectomy.....	6 50
1811	"	McDowell's ".....	3 25
1812	"	Haldeck's ".....	4 00
1813	"	Strawbridge's Keratome.....	7 50



All instruments designated by a * are illustrated.

EYE SCISSORS.

FIG.

*1814.	Eye Scissors, Chadwick's Pterigum.....	\$ 4 50
*1815.	“ “ “ “	4 50
*1816.	“ “ Stevens' Subconjunctival Tenotome Scissors....	3 25

(Extract from "*Archives of Ophthalmology*," June, 1888.)

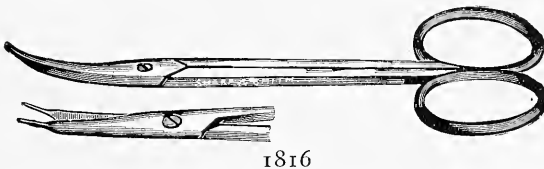
THE ANOMALIES OF THE OCULAR MUSCLES.

By Dr. GEORGE T. STEVENS, New York.

* * * The method of operating in heterophoria has been described in a former paper. Since writing that paper the method has been still further modified, and I shall here only refer to the modified steps in the operation.

In making the incision through the conjunctiva the smallest possible opening is made, precisely over the center of the insertion of the tendon. The opening should be less than $\frac{1}{2}$ millimeter in extent. Then the blades of the scissors are introduced with greatest care, one on the scleral and the other on the conjunctival side of the tendon, when they are insinuated toward the border, then pressed strongly against the insertion of the tendon.

In order to permit the blades to be introduced in this small wound and to be carried properly into position for cutting the tendon, they have been modified in an important manner. As now made the blades are quite thick and strong until within about one-third of an inch from the extremity, when they become suddenly very slender, the two united being less than the size of No. 1 Bow-



man's probe. The points, although so extremely delicate, are perfectly strong, and "walk and talk" together in the most perfect manner. There is no catching or failure to cut under any circumstances.

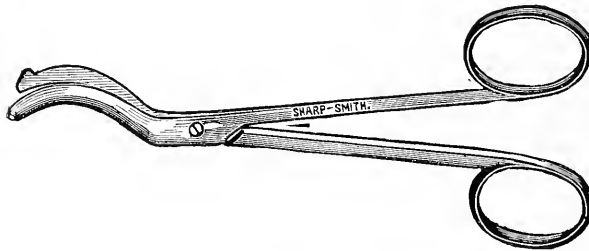
In operating for esophoria, a certain allowance is to be made for the contraction which occurs in the process of healing.

I have found it advisable not to allow more than 1° or 2° exophoria immediately after the operation, with abduction of 11° , or at most of 12° . If we allow a greater degree of exophoria or of abduction, we are open to risk of permanent exophoria. Exophoria of 1° or 2° on the day following the operation is liable to progressive increase, and should the abduction remain in excess with exophoria 1° or more on the next day after the operation, the excess should be corrected. An exophoria 1° or 2° , with abduction of 11° or 12° at the time of operation, very rarely, if ever, shows an over-correction after the first few

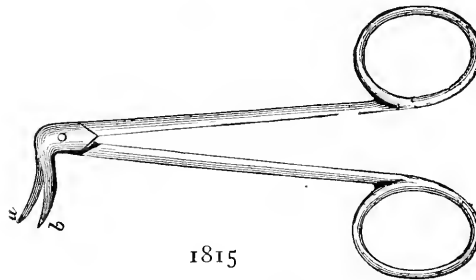
hours. On the following day after such an operation, we should hope for abduction of 8° with no esophoria.

Should it be required to reduce the extent of the operation, it can be accomplished in the following manner: A delicate Tyrell's hook is introduced beneath the conjunctiva and the divided extremity of the tendon. The hook is then turned with its point forward and pressed against the central part of the tendon, when traction is made. The extreme cut border of the tendon is drawn into the small opening of the conjunctiva, when a needle carrying a No. 000000 silk thread is passed as near to the edge as possible. It is then passed into the subconjunctival tissue at the corneal side of the wound and outward, including the conjunctiva, to the extent of less than one millimeter. The thread is tied so as to graduate the tension, bringing the tendon forward sufficiently to guard against exophoria while preserving the required relaxation.

This procedure, when required, should be made with the finest of thread and with the most extreme delicacy of manipulation.



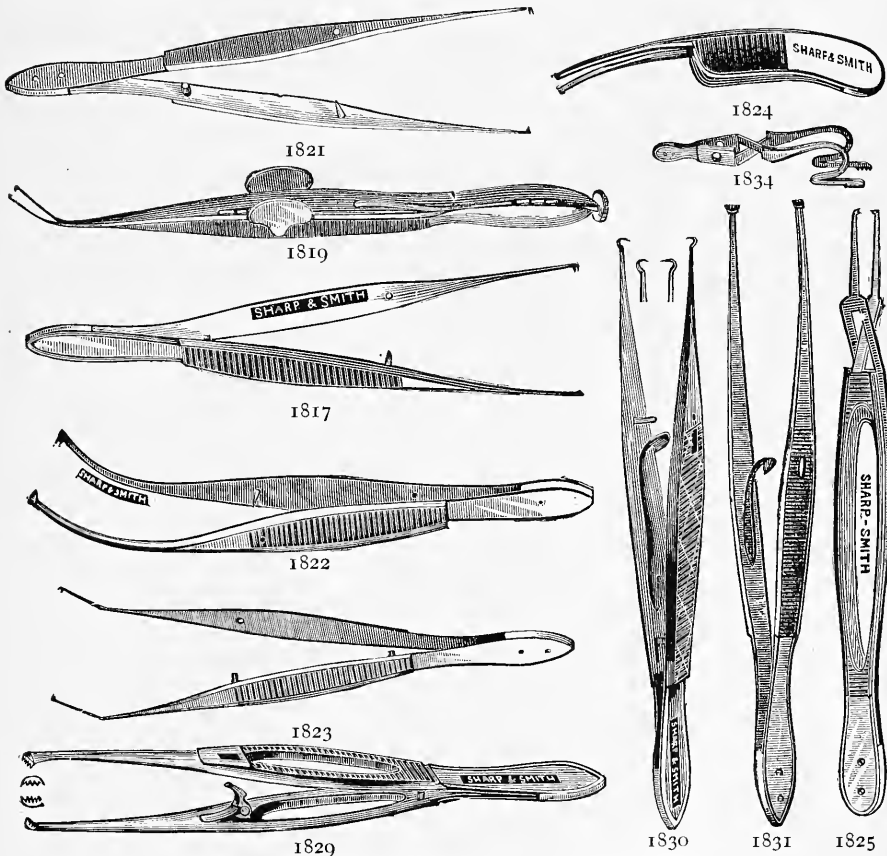
1814



1815

EYE INSTRUMENTS.

FIG.			
*1817	Strabismus Forceps, straight....	\$:	10
1818	" " curved.....	1	10
*1819	Iris Forceps, Leibrich's Rotating.....	3	00
1820	" " " latest.....	4	25
*1821	" " straight.....	1	10
*1822	" " curved.....	1	10
*1823	" " Graefe's Angular.....	1	25
*1824	" " Fischer's.....		90
*1825	" " Walton's Self Holding.....	1	85
1826	Fixation Forceps, Noyes' Curved.....	1	10
1827	" " " with spring.....	1	50
1828	" " " " slide.....	2	25
*1829	" " Dudley's.....	2	25
*1830	" " De la Roosa's.....	1	50
*1831	" " Graefe's.....	1	50
*1832	" " Carron de Villard's.....	2	25
*1833	" and Tumor Forceps.....	1	15
*1834	Conjunctiva Forceps, Noyes'.....	2	50
1835	Adhesion " curved.....	1	50

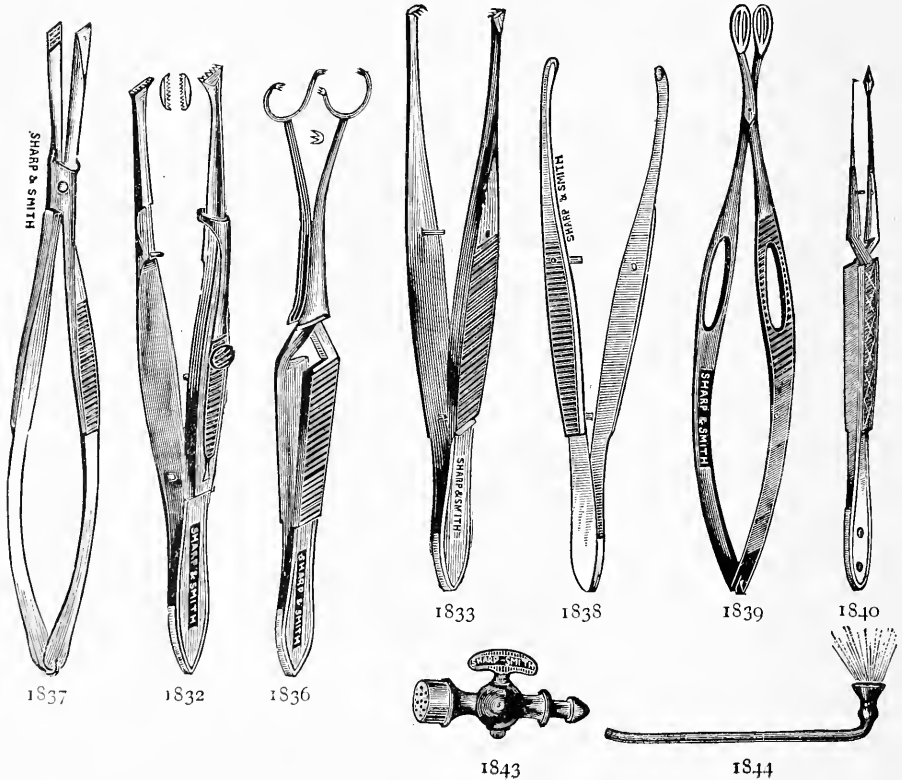


All instruments designated by a * are illustrated.

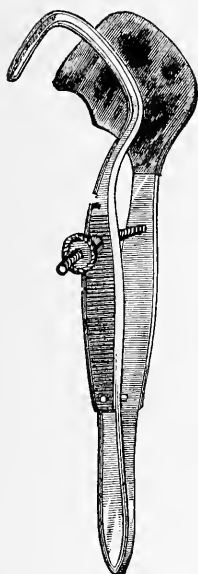
EYE INSTRUMENTS.

FIG.

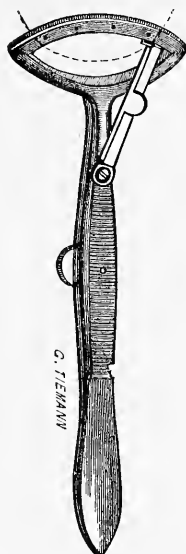
*1836	Blitz' Extirpation Forceps.....	\$2 25
*1837	Henry's Depilating ".....	1 75
*1838	Cilia Forceps.....	75
*1839	Foreign Body Forceps.....	2 40
*1840	Lanne's Forceps Needle, for false membranes.....	3 25
1841	Noyes' Eyelid Clamp Forceps.....	1 85
1842	Rattis Trichiasis ".....	2 25
*1843	Eye Spray, hard rubber.....	50
*1844	Eye Spray.....	60
For other Sprays, see Index.		
*1845	Entropium Forceps, Snellen's.....	2 00
*1846	" " T. & Co.'s, with knife.....	5 25
*1847	" " Knapp's.....	3 00
*1848	" " Laurence's.....	2 50
*1849	" " Prout's reversible.....	2 60
1850	" " Plain.....	1 50
*1851	" " Cross Bar.....	1 75
1852	" " Ring.....	2 25
1853	" " Desmarre's Shell.....	2 25
*1854	" " " metal.....	2 25
*1855	" " Noyes', with slide catch.....	1 85
1856	" " " " " ".....	1 85
*1856A	Sharp & Smith's Ring Lid Elevator.....	50



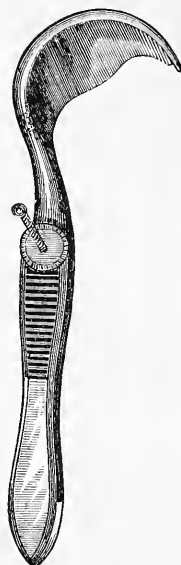
EYE INSTRUMENTS.



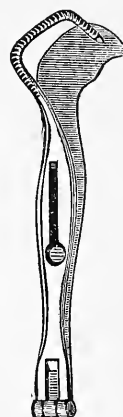
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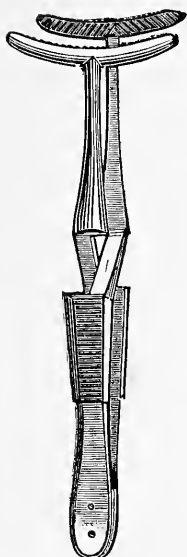
1846



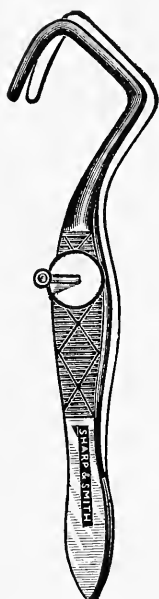
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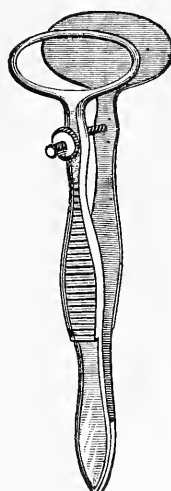
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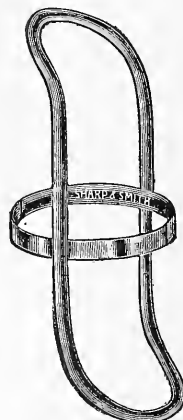
1851



1855



1854

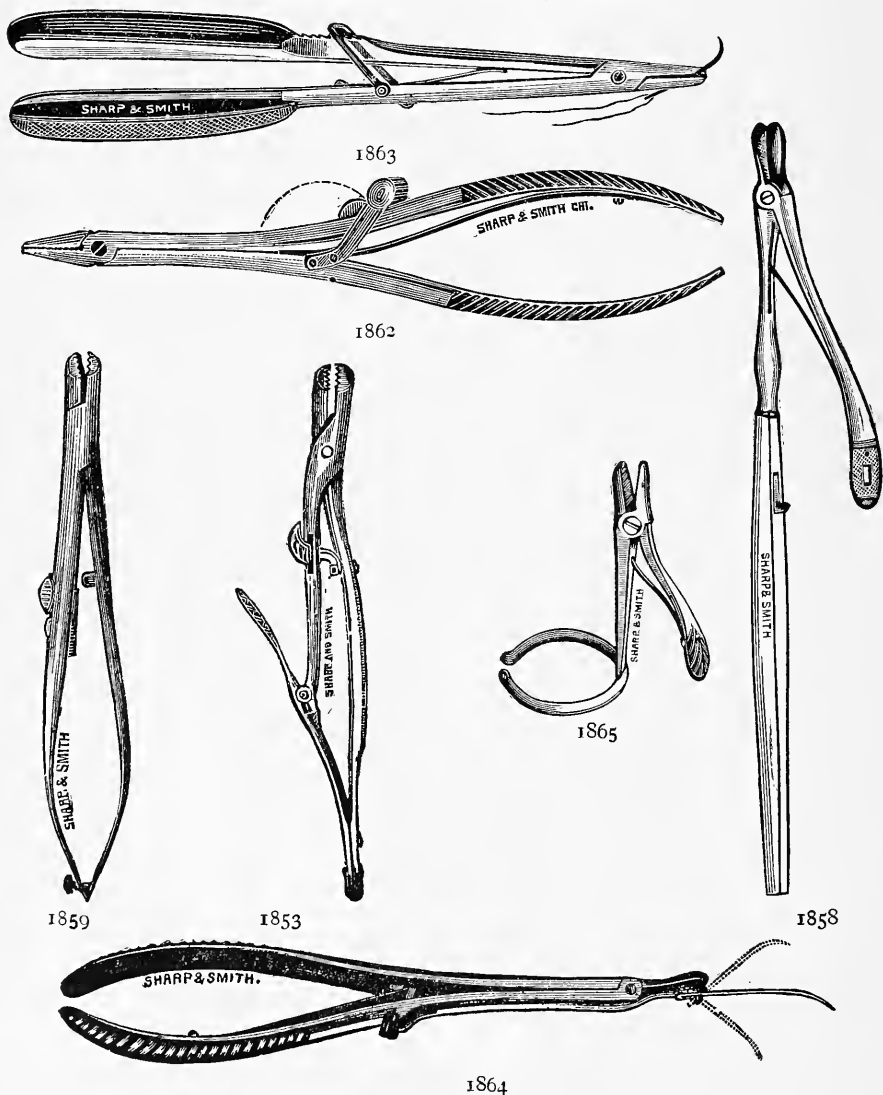


1856-A

EYE INSTRUMENTS.

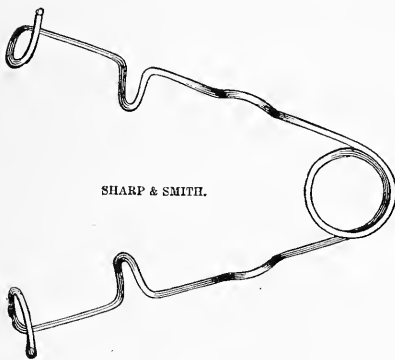
FIG.					
*1857	Needle Holding Forceps, Sand's.....				\$ 3 00
*1858	" " " " Knapp's, very delicate.....				4 00
*1859	" " " " Prout's.....				2 60
1860	" " " " Whitney's.....				3 25
1861	" " " " Collins'.....				3 25
*1862	" " " " Renier's.....				3 00
*1863	" " " " Russian.....				3 00
*1864	" " " " Paris.....				3 50
*1865	" " " " Galezowsky's.....				2 25
1866	" " " " Hagedorn's.....				6 00

For other Needle Holders, see index.

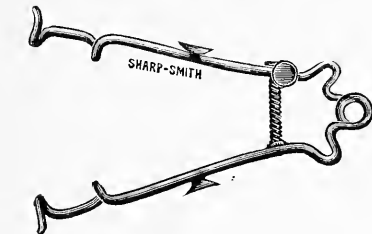


EYE INSTRUMENTS.

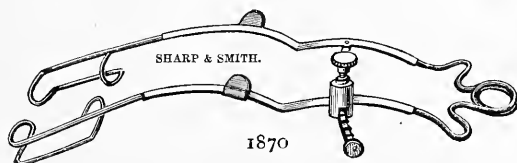
FIG.			
*1867	Specula, plain wire.....	\$	50
*1868	“ “ “.....		50
*1869	“ Graefe's, short.....	1	75
*1870	“ “ long.....	2	00
*1871	“ Noyes' Improved, steel gilt.....	3	00
1872	“ “ “ nickel plated.....	2	50
*1873	“ “ plain.....	1	25
1874	“ “ right and left, each.....	2	75
*1875	“ Liebold's.....	1	85
*1876	“ Hart's.....	1	10
*1877	“ Galante's.....	3	00
*1878	“ Liebrich's.....	1	50
1879	“ Laurence's.....	2	25
*1880	“ Critchet's.....	1	50
1881	“ Agnew's.....	3	75
1882	“ Mittendorf's.....	1	50
*1883	“ Pana's.....	4	00
*1884	“ Schweigger's.....	3	00
*1885	“ Luer's.....	1	50
1886	“ Comb's.....	1	75
*1887	“ Schwatka's.....	1	50



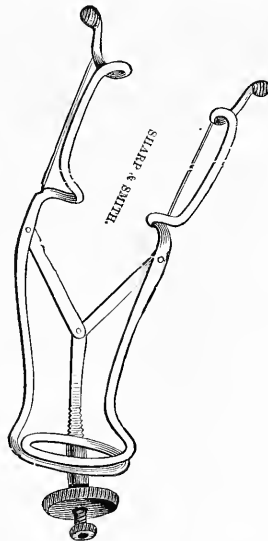
1867



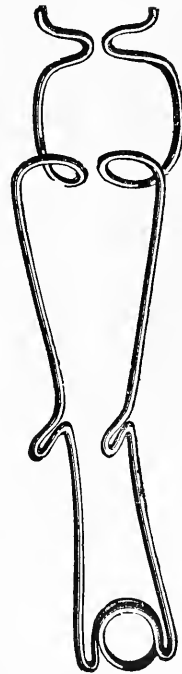
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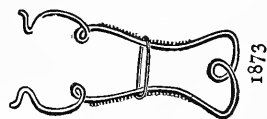
1870



1871

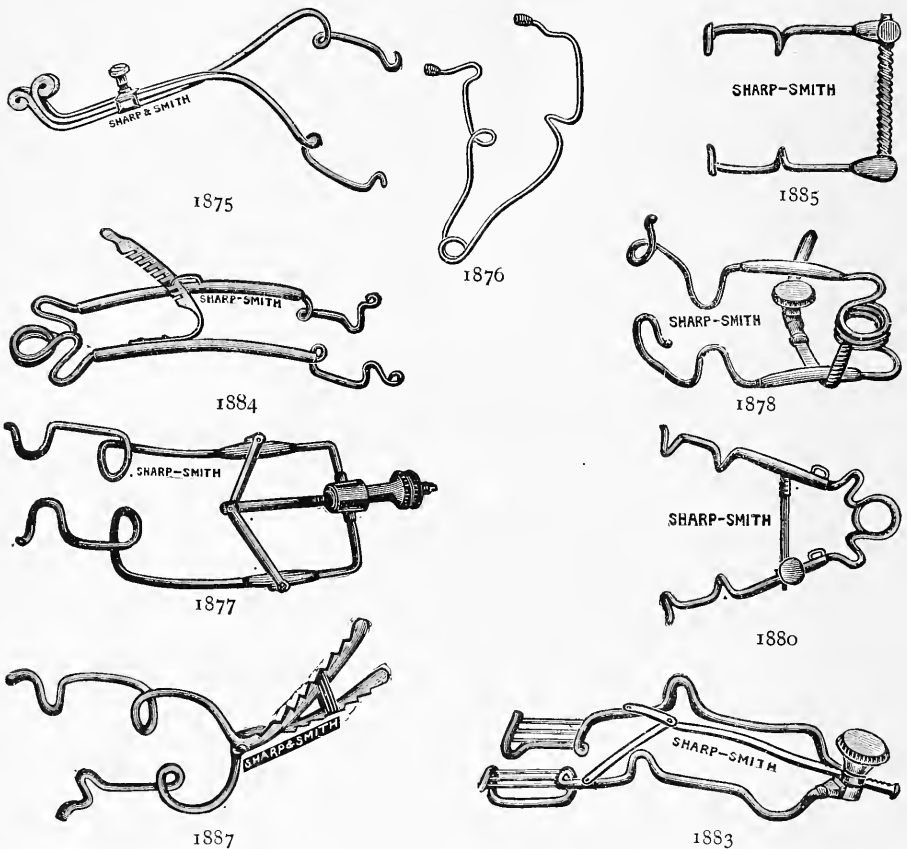


1868



1873

EYE SPECULUMS.



This Speculum (Fig. 1887), the invention of Lieut. Schwatka of the United States army, is well explained by the above illustration.

The branches that pass under and clasp the eyelids can be of any of the various forms that may suit the ideas of different operators. It is in the lever branches that open and close the former that the essential novelty of the instrument is found. These levers are reflected back on to the same side as the branches they respectively operate, so that their closure opens the branches, and *vice versa*. They are serrated on their outer edges, which indentations are made to firmly receive a rubber band that is the power in opening the speculum, and which power may be made variable by simply slipping the band along the serrations according to the well known principles of the lever. It is evident that more than one band can be used and increased power be obtained, but as now made, the single band at the end of the levers is sufficient to almost break the finest made instruments when attempting to close the branches, and is therefore sufficient. The crowns of the teeth are somewhat rounded, making it easy to slip the round rubber band along them to any point, and even during an operation. That fineness of touch so common among oculists, acquired by the manipulation of such delicate instruments as are necessary in their profession, will here materially assist them in properly adjusting this instrument for any operation.

EYE INSTRUMENTS.

FIG.				
1888	Eye Probes,	Noyes' Set		\$ 2 25
1889	" "	Levis'		1 50
*1890	" "	Theobald's Set of 16 (8 pieces)	per set in neat case.	5 00
1891	" "	silver, delicate.		35
1892	" "	Anel's, silver.		35
*1893	" "	Bowman's, set of eight, silver		2 15
1894	" "	" single, silver, two sizes		55
1895	" "	" set of eight, hard rubber, same as Fig. 1873.		1 50
1896	" "	" single, hard rubber, two sizes.		40
1897	" "	Livingston's elastic		1 75
*1898	" "	Williams', set of eight, silver, A and B		2 15
*1898	" "	Dilator, Williams', silver, C		75
*1898	" "	" " " D and E.		35
1899	Weber's	Graduated Dilator		75
*1900	Galezowsky's	Canaliculous Dilator		1 90
*1901	Bowman's	Silver Director		50
*1902	Wecker's	Lachrymal Canula		1 25
*1903	Spier's	" Catheter, silver.		75



1890



1892



1893



1898



1901



1903



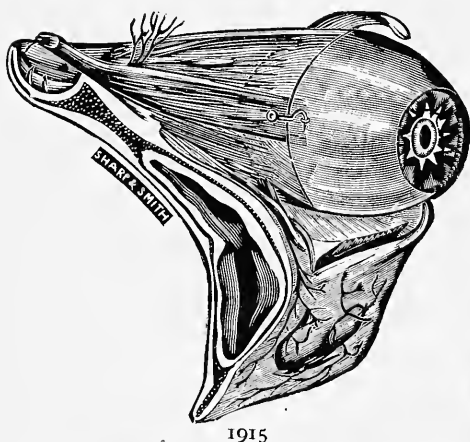
1902



1900

EYE INSTRUMENTS.

FIG.			
*1904	Jaeger's Plate Lid Holder, hard rubber	\$	75
1905	" " " shell.....	I	15
*1906	Alum Pencils.....		25
*1906	Blue Vitriol Pencils		25
1907	Nitrate of Silver Pencils.....	I	00
*1908	Hotz' Eye Glass Drop.....		10
	Medicine Droppers, per dozen.....		50
1909	Ophthalmic Phantomes, hard rubber, jointed stand, and face on pivot, two eyes ..	12	00
*1910	" " " one eye.....	8	50
1911	" " " plain japanned, movable stand, one eye	6	00
1912	Glass Eye Baths		25
1913	Thompson's Optometer.....	I	60
1914	Pupilometer.....	3	75
*1915	Perins' Eye.....	25	00
1916	Camel's Hair Brushes, per dozen.....		25
1917	Desmarre's Cautery Irons ..	2	25
1918	Silver Case Caustic Holder, short.....	I	10
1919	" " " medium.....	I	50
1920	Knapp's " "		80
1921	Eye Cups.....		25
1922	Eye Bath Bottles.....		75
1923	" Douche, common.....		75
1924	" " H. R. stop cock (see Fig. 1843).....		50
1925	" " Agnew's.....		25
1926	Eye Shades, single, small		20
1927	" " double		25
1926	" " single, large.....		25
1927	" " double.....		35
	Artificial Eyes, all styles (see page 387.).....	5	00
	Price to Patients, \$10.00 each.		



1915



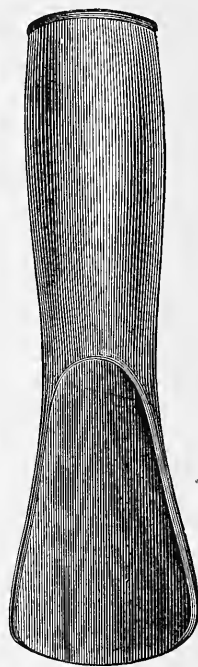
1910



1908



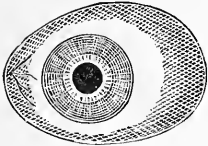
1906



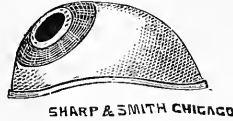
1904

All instruments designated by a * are illustrated.

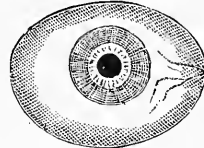
HEADQUARTERS FOR
FRENCH AND GERMAN ARTIFICIAL EYES.



SHARP & SMITH CHICAGO



SHARP & SMITH CHICAGO



SHARP & SMITH CHICAGO

We have on hand a large assortment of colors, forms and sizes, for the right and left eye, from which personal selections may be made, or we can send them by express; but as the success of being well matched depends on the exactness of the description and the minuteness of adaptation and accommodation of the Artificial Eye to the remains of the natural one, we advise patients to apply to their physician and have him send us the following particulars:

1. Right or left eye.
2. Diameter of the iris of the well eye.
3. Normal diameter of the pupil.
4. Degree of atrophy of globe in comparison to well eye.
5. Form of anterior of stump, flat, round or conical.
6. Partial or entire presence or absence of cornea remaining transparent.
7. Depth of furrow behind lower lid.
8. Sex and age of patient.
9. A drawing (natural size) representing accurately the eye region of both eyes, the color of the iris and sclerotica (or a minute description).

Price to Patients, - \$10 00.

IN ORDERING GOODS

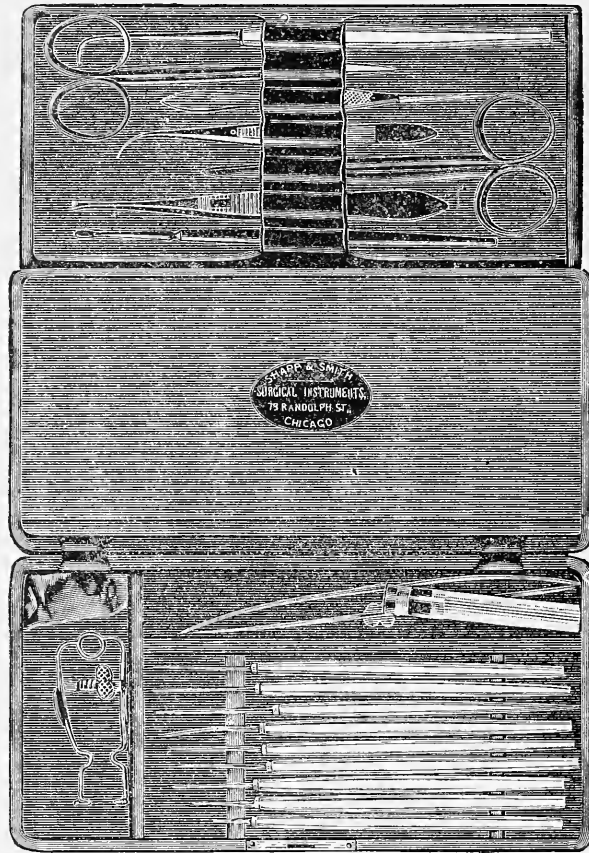
PLEASE STATE

NUMBER OF FIGURE AND PAGE OF CATALOGUE.

PLEASE DO NOT DEFACE THE CATALOGUE BY CUTTING
OUT THE ILLUSTRATIONS.

SHARP & SMITH.

EYE CASES.



1928

Fig. 1928.—Dr. W. F. Montgomery's Eye Case contains:

- | | |
|--------------------------------------|---------------------------------------|
| 1 Gallante's Eye Speculum. | 1 Graefe's Cataract Knife. |
| 1 Graefe's Narrow Cataract Knife. | 1 Small Angular Keratome. |
| 1 Large Angular Keratome. | 1 Plastic Scalpel. |
| 1 Cataract Needle. | 1 Stop Cataract Needle. |
| 1 Noye's Canaliculous Knife. | 1 David's Rubber Spoon. |
| 1 Lens Spoon. | 1 Pair Spring Catch Fixation Forceps. |
| 1 Pair Curved Iris Forceps. | 1 " Tenotomy (Strabismus) Forceps. |
| 1 " Iris Scissors. | 1 " Optic Scissors. |
| 1 " Tenotomy Scissors, (Strabismus). | 1 Set Bowman's Probes, 1 to 8. |
| 1 Desmarre's Entropium Forceps. | 1 Whitney's Needle Holder. |
| 2 Strabismus Hooks. | 1 Pair Heavy Curved Scissors. |

Needles and Silk, in fine Morocco covered Velvet lined case, \$32 00

This case can be had modified in any way desirable. The case as it now is, is sufficiently small to be carried in the hip pocket.

Any desired case put up to order, adding any instruments that you may have on hand.

EYE CASES.**Fig. 1929. EYE CASE, No. 5, CONTAINS:**

Beer's Knife; Curved Needle; Iris Needle; Forceps; Scissors, fine-pointed, curved on the flat; Wire Speculum; Strabismus Hook; Dix's Hook; Dix's Spud; Silver Probe; 3 Suture Needles; Fine Silk; Tyrrel's Sharp Iris Hook; Daviel's Curette. Morocco case, lined with silk velvet.

Price.....\$ 12 75

Fig. 1930. SHARP & SMITH'S EYE CASE, No. 4, CONTAINS:

1 Beer's Knife; 1 Keratome or Artificial Knife; 1 Dix's Spud; 1 Curved Needle; 1 Straight Needle; 1 Pair Iris Scissors, straight; 1 Pair Strabismus Scissors; 1 Strabismus Hook; 1 Wire Speculum; 1 Parker's Fistula Lachrymalis Knife; Tyrrell's Blunt Hook; Silver Probe; 1 Critchett's Lens Scoop; 1 Pair Forceps; 6 Suture Needles; Fine Silk. In a Rosewood case, lined with silk velvet.

Price.....\$ 18 00

Fig. 1931. SHARP & SMITH'S EYE CASE, No. 3, CONTAINS:

Graefe's Linear Knife; Parker's Fistula Lachrymalis Knife; Beer's Cataract Knife; Desmarre's Scarificator; Straight Keratome; Angular Keratome; Strabismus Hook; Small Scalpel; Large Curved Needle, couching; Small Curved Needle; Straight Iris Needle; Cystotome; Tyrrell's Blunt Hook; Tyrrell's Scoop; Wire Speculum; Cilia Forceps; Strabismus Forceps; Iridectomy Forceps; Straight Iris Scissors; Iris Scissors, curved on the flat; Anel's Silver Probe; 6 Suture Needles and Fine Silk. Rosewood case, lined with silk velvet.

Price.....\$ 25 75

Fig. 1932. SHARP & SMITH'S SET OF STRABISMUS INSTRUMENTS, No. 2, CONTAINS:

1 Pair Strabismus Scissors; 1 Pair Strabismus Forceps; 1 Double Hook; 1 Strabismus Hook; 1 Wire Speculum. In a neat morocco case.

Price.....\$ 6 25

Fig. 1933. SHARP & SMITH'S EYE CASE, No. 1, CONTAINS:

1 Curved Couching Needle; 1 Strabismus Hook; 1 Beer's Cataract Knife; 1 Double Hook; 1 Pair Curved Forceps; 1 Pair Strabismus Scissors; 1 Wire Speculum. In a neat morocco case, lined with silk velvet.

Price.....\$ 9 00

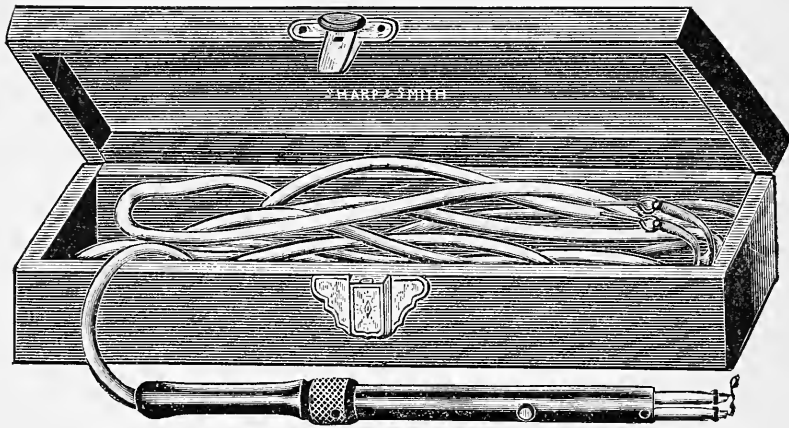
Fig. 1934. NOYES' EYE CASE, CONTAINS:

2 Desmarre's Eyelid Retractors, large and small; 1 Wire Speculum; 1 Noyes' Canalicula Knife; 1 Set Bowman's Probes, silver, Nos. 1 to 8; 1 Small Scalpel; 1 H. R. Dental Syringe; 2 Strabismus Hooks; 1 Pair Straight Iris Scissors; 1 Pair Curved Iris Scissors; 1 Pair Fixation Forceps; 1 Dissecting Forceps; 1 Dix's Spud; 1 Spatula; 1 Straight Iridectomy Knife (Keratome); 1 Angular Iridectomy Knife; 1 Short Iris Forcep; 1 Large Curved Iris Forceps; 1 Tyrell's Blunt Hook; 2 Straight Decision Needles; 1 Graefe's Linear Knife, wide pattern; 1 Small Sharp Iris Hook; 1 Pair Prout's Entropium Forceps; 1 Cystotome and Curette; 1 Sands' Needle Forceps; 2 Graefe's Linear Knives; 1 H. R. Spoon; 1 Critchett's Lens Scoop; 6 Small Curved and 3 Straight Suture Needles, and Fine Silk. In a fine Rosewood, brass bound case, lined with silk velvet.

Price.....\$ 49 50

Any style of case made to order.

EYE INSTRUMENTS.



1935

A Perfection Cautery Handle for Eye Operations.

By F. C. HOTZ, M. D., Attending Surgeon at Illinois Charitable Eye and Ear Infirmary,
Chicago, Ill.

The use of the Electro-Cautery on the eye requires an instrument which allows easy, quick and delicate manipulations. All these conditions are found in the Cautery Handle represented above. It was made for me by an instrument maker in Berlin, Germany, and has proven its merits in many cases during the three years I have tried it.

Made of hard rubber, it is as light as a pen holder; the little button for closing the circuit responds to the slightest touch of the finger so readily that the position of the instrument is not disturbed at the moment the current is closed and the loop heated, and therefore we can easily keep the point of the loop in contact with the *very point* of the cornea we wish to cauterize; and the cable cord is so light and flexible that it does not impede the free and easy handling of the instrument.

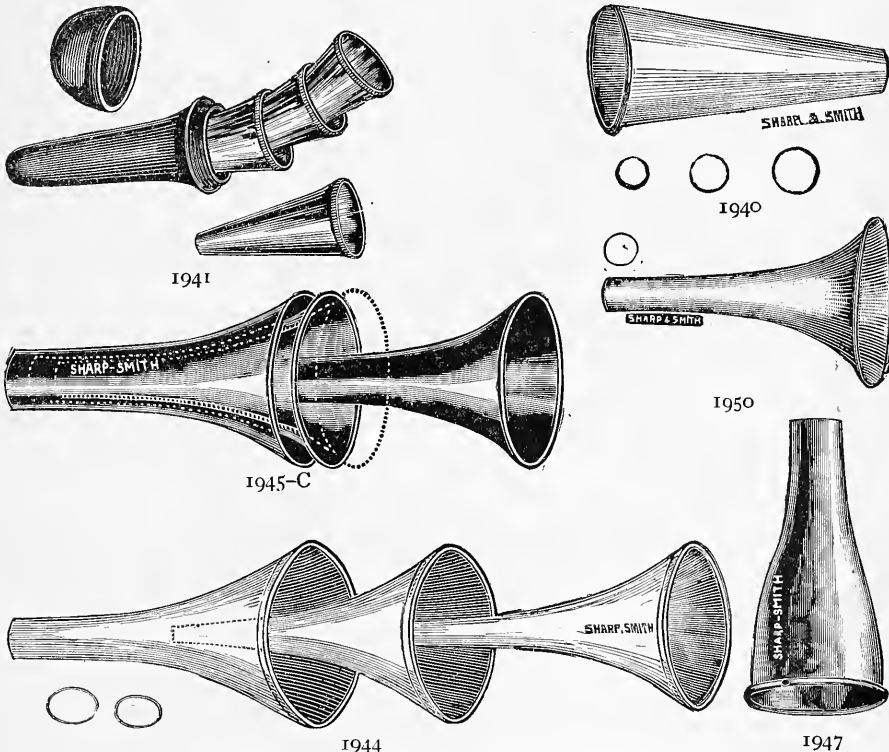
These Cautery Handles and Cords are now made in this Country
by Sharp & Smith, 73 Randolph Street, Chicago, Ill.

PRICE. - - - \$10.00.

For Dr. Hotz' Ear Instruments, see "Supplement" at end of Book.

EAR INSTRUMENTS.

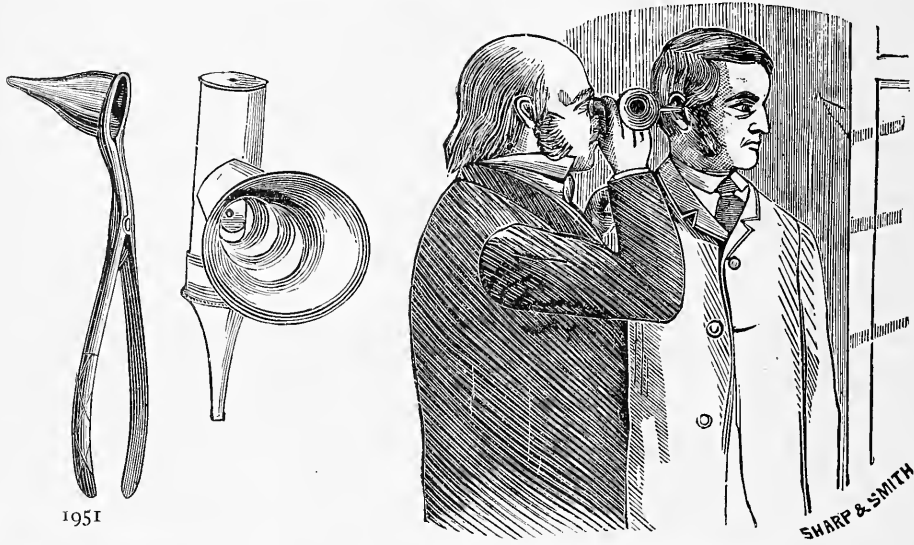
FIG.							
*1940	Wilde's	Ear Specula, set of 3 in case, H. R.	3	"	silver	\$1 00	
*1941	"	"	3	"	"	3 00	
1942	"	"	3	"	" plated	1 50	
1943	Toynbee's	"	3	"	H. R.	1 50	
*1944	"	"	3	"	silver	3 00	
1945	"	"	3	"	" plated	2 00	
1945-A	Hotz's	"	3	"	H. R.	1 00	
1945-B	"	"	3	"	silver	3 00	
*1945-C	"	"	3	"	" plated	2 00	
1946	Gruber's	"	3	"	H. R.	1 50	
*1947	"	"	3	"	silver	3 00	
1948	"	"	3	"	" pla d	2 00	
*1950	Sexton's	"	3	"	"	2 25	
*1951	Kramer's Bivalve Ear Specula, nickel plated, 3 sizes	each				1 50	
1952	"	"	"	"	" with set screw	1 85	
1953	Bivalve	"	"	"	"	1 00	
1954	Knapp's Tubular	"	3 in set, H. R.			1 20	
*1955	Spiers' Self-Retaining Ear Specula					3 00	
1956	Glass Mirror	"	"			35	
1957	Porcelain	"	"			40	
*1958	Fergen's	"	"			3 50	
1959	Siegele's	"	"			3 00	
1960	Hudson's	"	"			2 25	



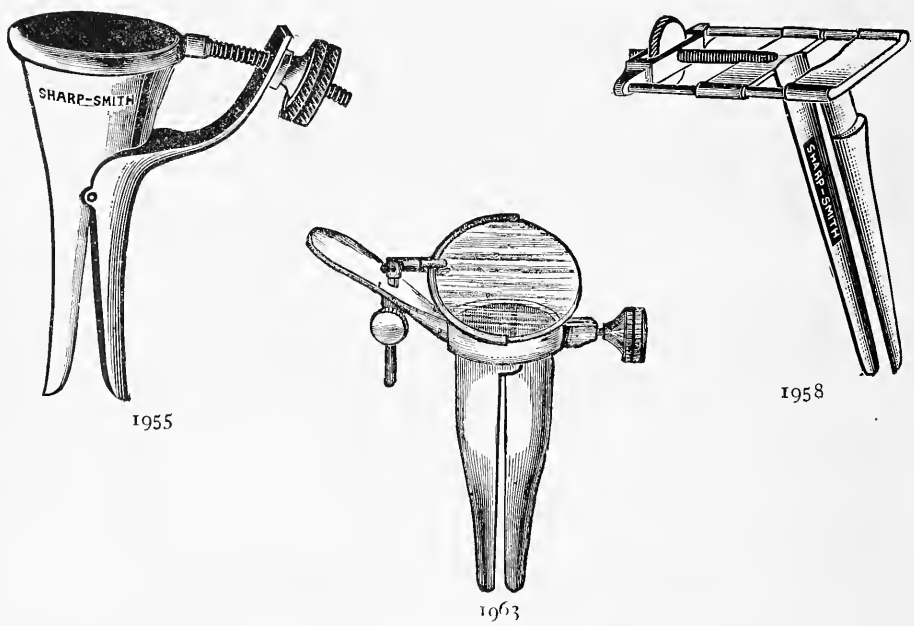
All instruments designated by a * are illustrated.

EAR INSTRUMENTS.

FIG.		
*1961	Brunton's Otoscope.....	\$4 50
*1962	Clark's ".....	7 50
*1963	Simrock's " with Lens.....	3 50
*1964	Hassenstein's " three Tips.....	3 50
*1965	Siegele's Aural Otoscope.....	3 00
*1966	Ely's modification of Siegele's Otoscope.....	5 25

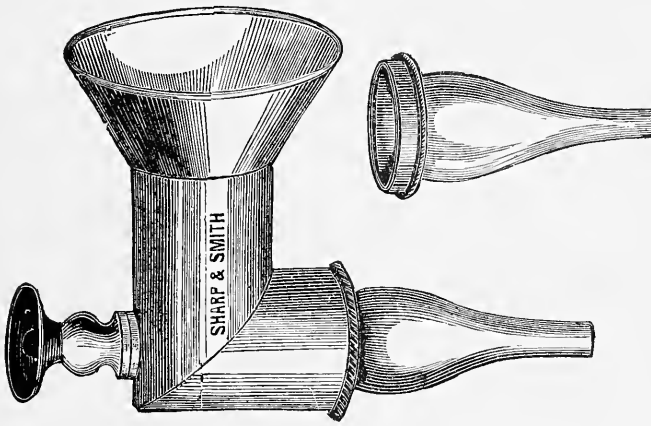


Application of the Otoscope.

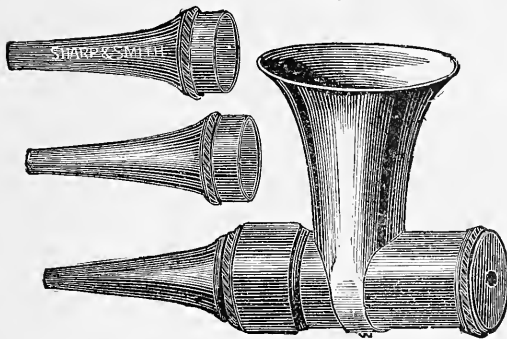


See next page for balance of Oscopes.

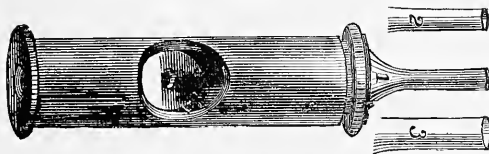
EAR INSTRUMENTS.



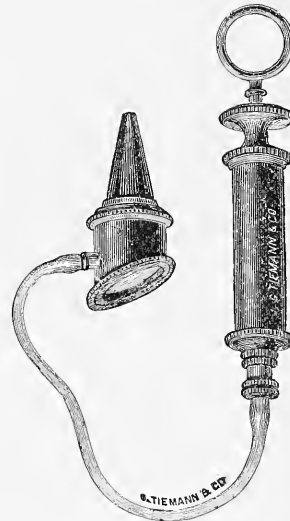
1962



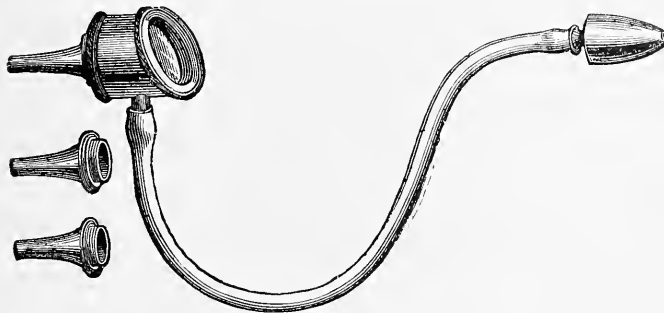
1961



1964



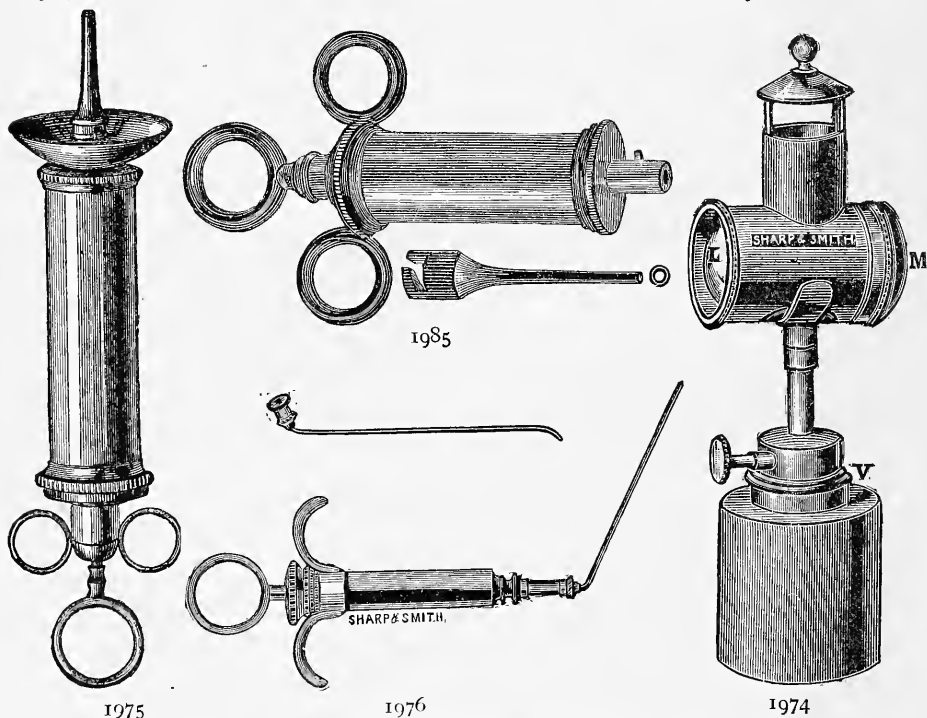
1966



1965

EAR INSTRUMENTS.

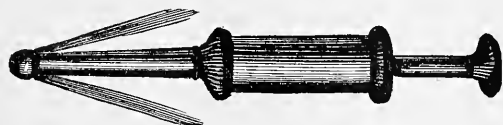
FIG.					
1967	Blake's Inner Ear Mirrors, Set	.....	\$	5	25
1968	Troeltsch's Mirrors with handle, 3 inches	.....		3	00
1969	" " " 2 1/2 "	.....		2	50
*1970	" " " 2 "	.....		2	25
1971	" " " and head band, extra	.....		1	00
1972	Mirrors, Ball and Socket, 2 inch with Head Band and Handle.	.....		3	25
1973	Miller's Lamp	.....		1	00
*1974	Collins' Lamp	.....		5	25
*1975	Pomeroy's Ear Syringe	.....		2	75
*1976	Blake's Inner Ear Syringe	.....		
1977	Kramer's Brass Ear Syringe with Rings, Small	.....		1	75
*1978	" " " " Large	.....		2	25
1979	" " " " Ivory Nozzle	.....		2	50
*1980	Hard Rubber " 1 oz	.....			65
1981	" " 2 oz	.....		1	50
1982	" " 3 oz	.....		1	75
1983	" " 4 oz, two tips	.....		2	00
*1984	Wheelock's Reversible Flow H. R. Syringe	.....		1	50
*1985	Sexton's Inner Ear Syringe	.....		7	50
*1985-A.	Roosa's " " Continuous Flow	.....		6	50
1986	Sexton's Ear Douche	.....		4	50
*1987	Lucae's Reflux Ear Syringe, Hard Rubber	.....		1	00
1987-A.	Rumboldt's Modification of Lucae's Douche	.....		3	75
1987-B.	" " " " tube only	.....		1	00



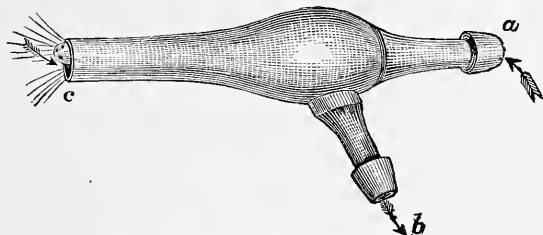
For other Syringes see next page.

All instruments designated by a * are illustrated.

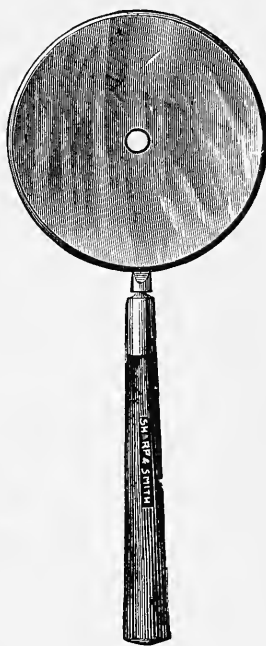
EAR INSTRUMENTS.



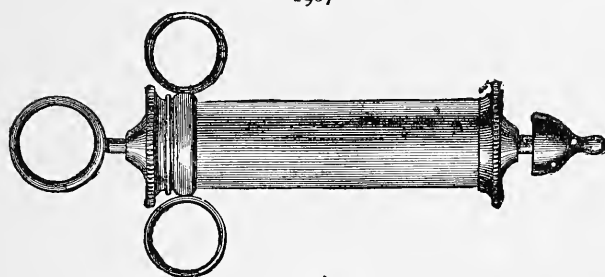
1984



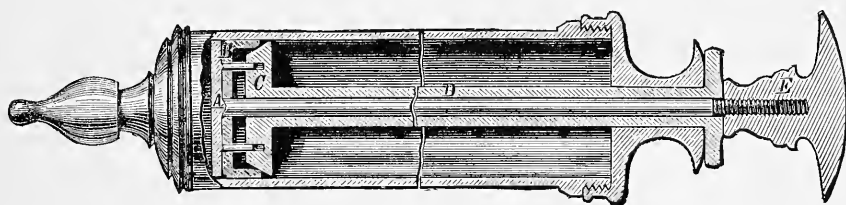
1987



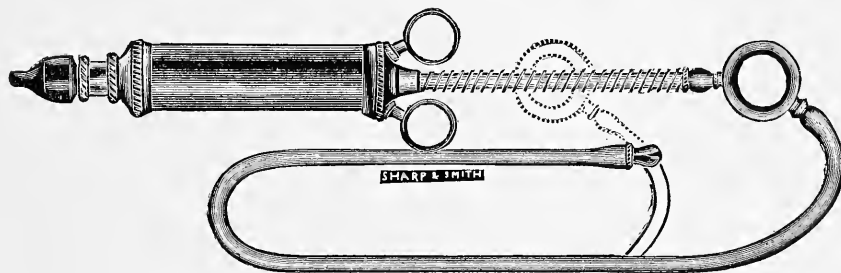
1970



1978



1980



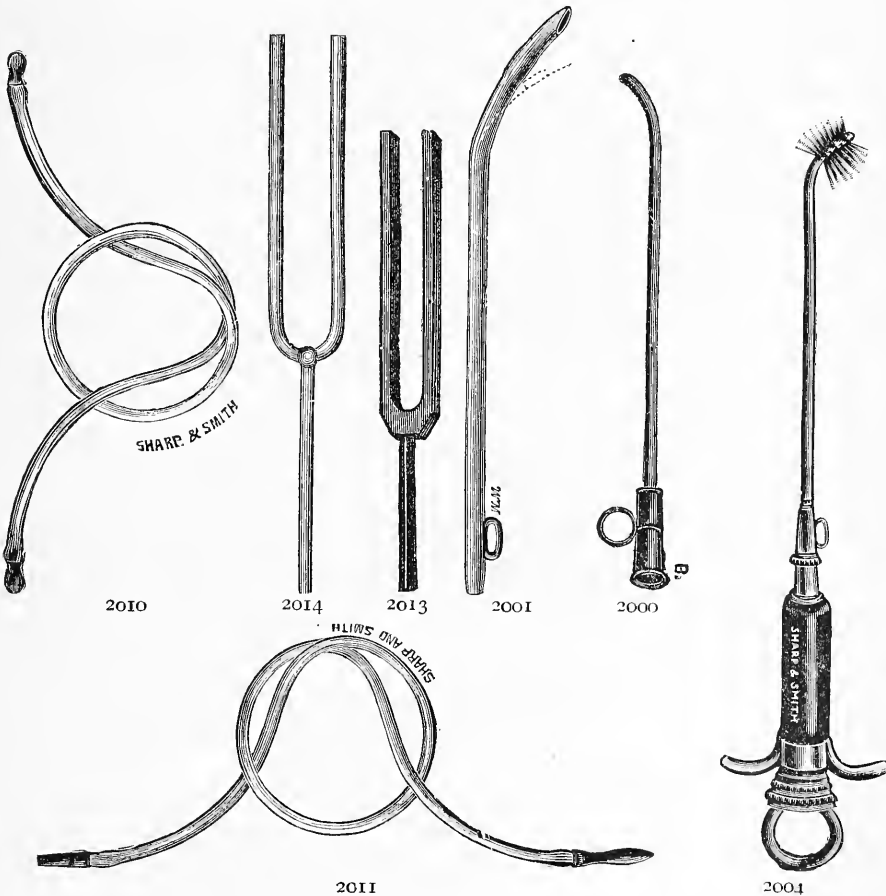
1985-A

By means of this Syringe a continuous syringing of the ear is effected, doing away with the old process of refilling the syringe. By virtue of the spiral wire around the piston rod the piston is forced back automatically, the syringe filling and emptying by an arrangement of valves in the piston, and through the hollow piston-rod which communicates with the reservoir, by means of the rubber tubing, thus creating a continuous flow.

EAR INSTRUMENTS.

FIG.

1996	Virgin Silver Eustachian Catheter.....	\$ 1 00
1997	Noyes' " " ".....	1 85
1998	Coin " " ".....	1 00
1999	Plated " " ".....	60
*2000	Hard Rubber " " ".....	50
*2000-A	Ferguson's Soft Rubber Eustachian Catheter.....	1 50
*2001	Rumbold's " " ".....	1 00
2002	Spier's Eustachian Catheter.....	90
2003	Seiss' " " with Rubber Syringe.....	2 25
*2004	Levis " " " Hard Rubber Syringe.....	2 50
2005	Bonafont's " " Holder....	1 50
2006	Stark's " " ".....	3 00
2007	Pomeroy—Kramer's Eustachian Catheter Holder.....	2 50
2008	Fullgraf's " Spray.....	4 50
2009	Hackley's " " ".....	4 85
*2010	Toynbee's Diagnostic Tube.....	60
*2011	" Explorer, to fit same.....	60
2012	Clark's Ear Tube.....	40
*2013	Tuning Fork—A.....	55
*2014	Tuning Fork—C.....	1 15



All instruments designated by a * are illustrated.

EAR INSTRUMENTS.

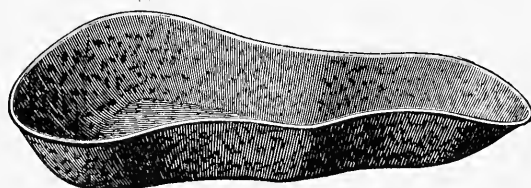
An Improved Form of Eustachian Catheter.

BY H. LINDO FERGUSON, F. R. C. S. J., DUNEDIN, N. Z.

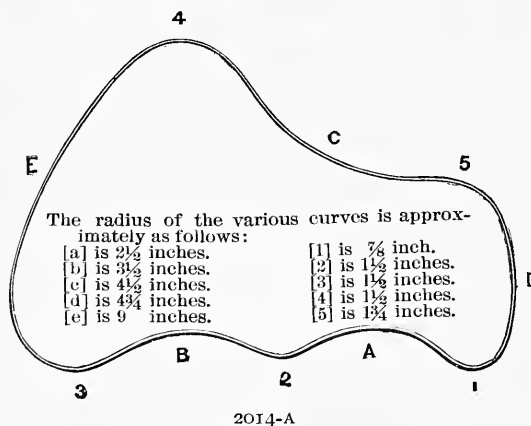
In order to overcome the difficulty of passing an Eustachian catheter in cases where the inferior turbinated bone or a displaced septum encroaches on the nasal passage, and to avoid giving pain to the patient when the nasal mucous membrane is much swollen and sensitive, a soft rubber catheter might be used, fitted with a straight style, on withdrawal of which the catheter would resume its curve.



The catheter is of the ordinary shape, and is of soft red rubber, having inside the stem and extending nearly to the point, a spiral of fine wire, which prevents the lumen of the instrument being lessened by pressure when in position. There is a straight style of the same length as the catheter, which, when it is introduced, obliterates the curve at the beak. The catheter on the style is introduced like a straight probe along the floor of the nostril, with the side to which the beak tends to curve, outward. When the back of the pharynx is felt, the style is withdrawn and the beak curls around to the mouth of the Eustachian tube. In several cases I have not had to draw it forward at all, for the curve of the beak withdraws the point about the right distance. The instrument passes through very much obstructed nostrils and gives no pain in cases in which the hard rubber catheter cannot be tolerated.



2014-A



NEW PUS BASIN.

From Design of H. L. Smith, M.D.

For hospital, dispensary and private practice, this basin will be much appreciated over the common ones in use, as some portion of it will perfectly fit any portion of the body.

Made of sheet iron, pressed into shape and coated with a pure vitreous enamel, which, for tenacity and power of resisting the action of acids, has no equal. The surface is smooth and as easily cleaned as china, while the article is light, and practically indestructible.

Fig. 2014-A — Pus Basins—
Each \$1.50.

For other Pus Basins, see page 405.

EAR INSTRUMENTS.

FIG.			
*2015	Buttles' Iodine Inhaler.....	of	I 00
2016	Pomeroy's Glass Inhaler.....		40
*2017	Rumbold's Injector.....		I 00
*2017-A	" Curved Injector.....		I 00
*2017-B	" Acou-Otoscope.....		I 85
*2018	Knapp's Powder Blower.....		I 00
*2019	Wilde's Ear Garget.....		I 00
*2020	Gooch's Double Polypus Canula for removing polypi, silver.....		I 75
2020-A	" " " " " " plated.....		I 00
2021	Hawley's " " " " " " " ".....		I 25

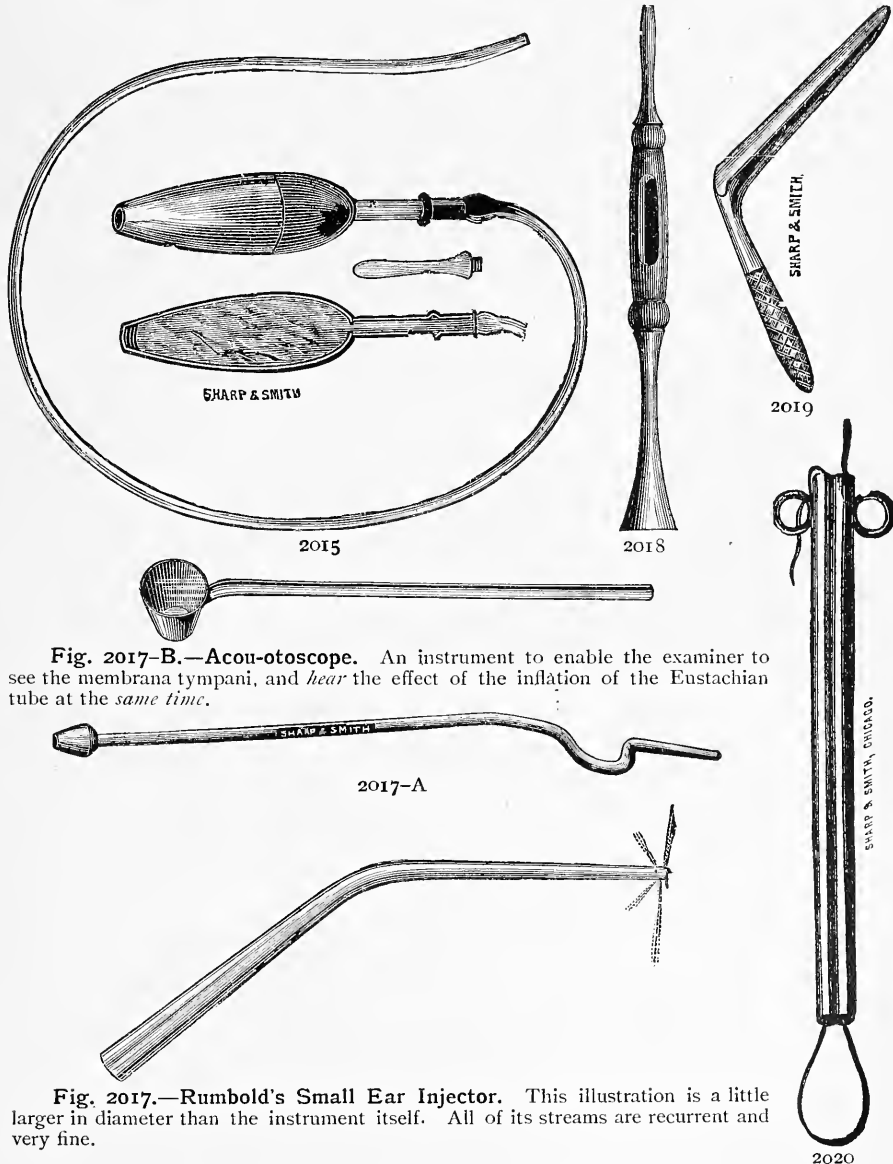
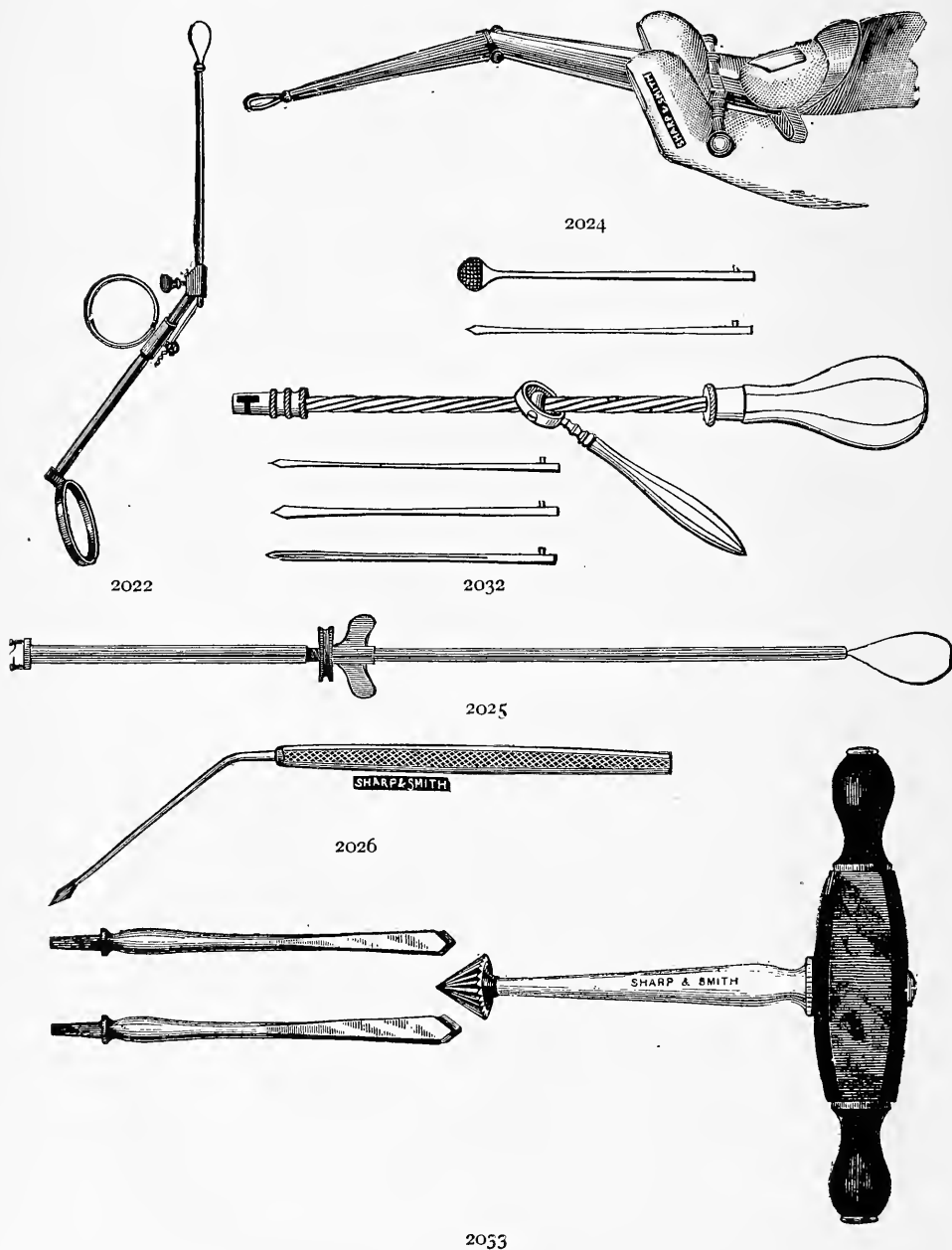


Fig. 2017-B.—Acou-otoscope. An instrument to enable the examiner to see the membrana tympani, and hear the effect of the inflation of the Eustachian tube at the same time.

Fig. 2017.—Rumbold's Small Ear Injector. This illustration is a little larger in diameter than the instrument itself. All of its streams are recurrent and very fine.

EAR INSTRUMENTS.

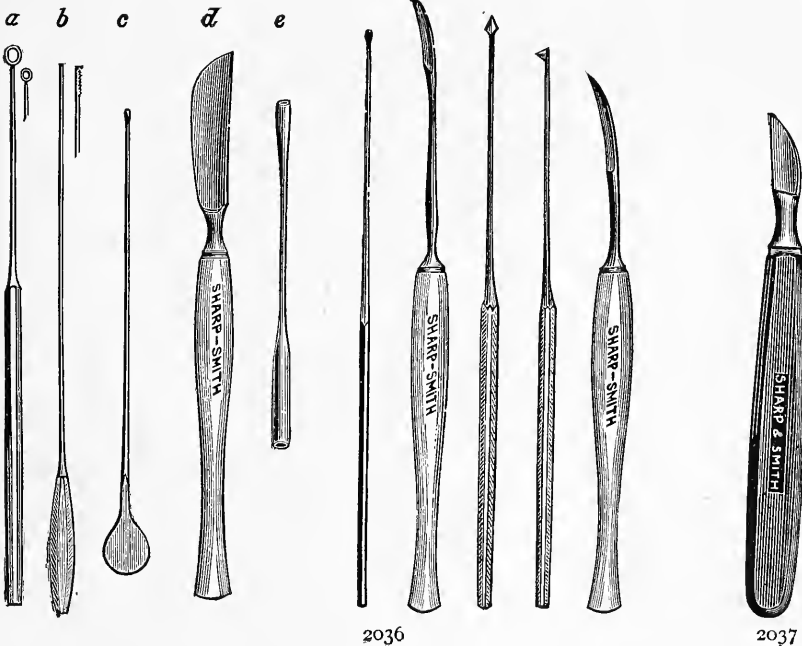
FIG.		
*2022	Blake's Polypus Snare.....	\$2 75
2023	" " " with three assorted Canulas and one Tympanum Perforator, in case.....	6 25
*2024	Wilde's Polypus Snare.....	2 50



EAR INSTRUMENTS.

FIG.		
*2025	Jarvis' Polypus Snare, straight.....	\$2 25
2025-A	" " " curved.....	2 75
*2026	Politzer's Tympanum Perforator, angular.....	75
2026-A	" " " Ivory handle.....	1 10
2027	Prout's " "	1 10
2028	Noyes' " "	1 10
2029	Blake's " "	1 10
2030	Gruber's Tensor Tympani Instrument.....	2 25
2031	Weber's " " "	6 00
*2032	Drill, with Guard for perforating the Mastoid Process.....	3 75
*2033	Buck's Drill " " " "	3 75
2034	Politzer's Meatus Knife.....	1 15
2035	Gruber's " " Sickie shape.....	1 20
*2036-A	Buck's Curette	55
*2036-B	" Cotton Holder.....	35
*2036-C	" Silver Probe.....	60
*2036-D	" Knife for Mastoid Process.....	1 10
*2036-E	" Port-Acid Glass.....	10
*2036-F	" Silver Probe.....	60
*2036-G	" Blunt pointed curved Bistoury.....	1 15
*2036-H	" Maryngotome.....	75
*2036-I	" Furnucle.....	1 00
*2036-K	" Sharp pointed curved Bistoury.....	1 10
*2037	Burnett's Knife for Mastoid Process	1 15
2038	Post's Rongeur Forceps for Mastoid Process.....	2 25
2039	Hand Gouge " " "	1 15

f g h i k



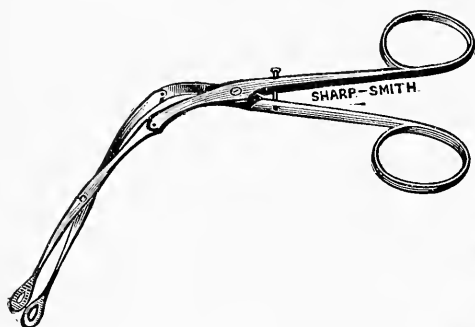
EAR INSTRUMENTS.

FIG.			
*2040	Angular Ear Hook.....	\$1	10
2041	Devil's Screw ".....	1	10
2042	Politzer's Manometer.....		60
*2043	Angular Steel Ear Probe.....		50
2044	Hard Rubber " ".....		20
2045	Whalebone " ".....		15
2046	Plain Silver " ".....		50
2047	Fenestrated Ear Scoop.....	1	15
2048	Civiale " ".....	3	75
2049	Politzer's Hard Rubber Scoop.....		75
*2050	Gross' Ear Spoon and Hook.....		50
*2051	" " " Spud.....		55
*2052	Spiers' Ear Curette Spiral.....		75
*2052-A	" " " and Spud.....	1	10
*2053	Quiers' " ".....	2	00
*2054	Elastic Caustic Holder.....	1	50
*2055	Politzer's Eyelet Forceps for introducing Eyelets in the perforated Tympanum.....	\$1	20
2056	Toynbee's Acoumeter.....	3	00

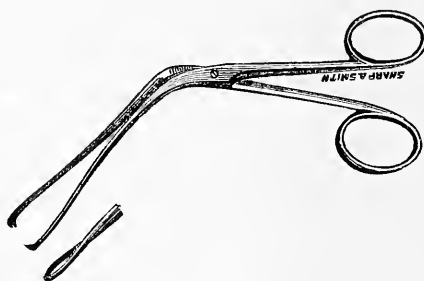


EAR INSTRUMENTS.

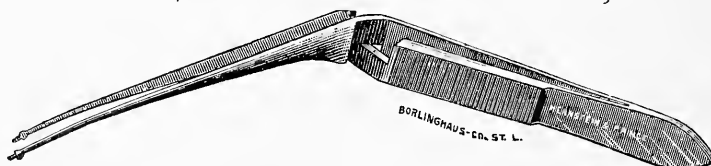
FIG.				
2068	Bumstead's Canulated Ear Forceps.....			\$3 00
*2069	Pomeroy's	" "		1 85
2070	Toynbee's Angular	" "		1 25
2071	Roosa's	" "		1 25
2072	Mathieu's	" "		3 25
*2073	Rumbold's Eyelet	" "		2 60
2074	Tiemann's	" "		3 75
2075	Wiers'	" "		3 25
*2076	Duplay's	" "		8 00



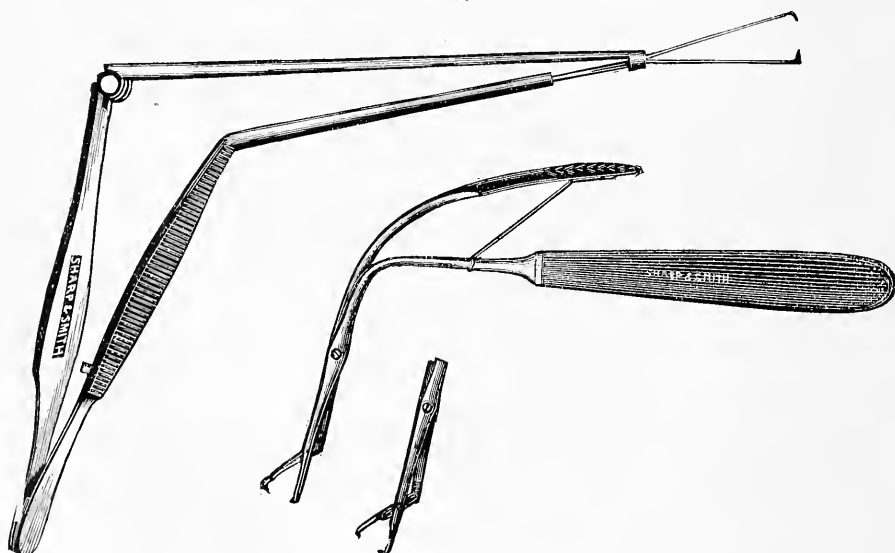
2064



2069



2073



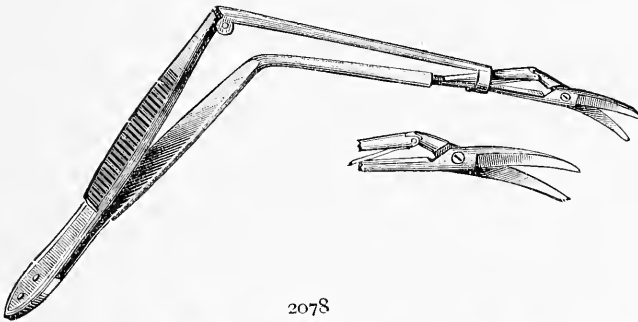
2066

2076

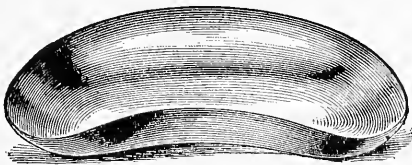
All instruments designated by a * are illustrated.

EAR INSTRUMENTS.

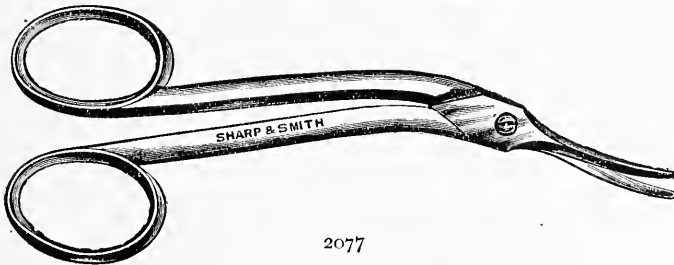
FIG.			
*2077	Gruber's Ear Scissors.....		\$3 00
*2078	Jarvis' " ".....		4 50
*2079	Simrock's " ".....		3 30
2080	Pus Basins, Nickel Plated, small.....		90
*2080-A	" " " " medium.....		1 10
2080-B	" " " " large.....		1 25
2080-C	" " " " triangular, small.....		1 75
2080-D	" " " " " medium.....		2 00
2080-E	" " " " " large.....		2 25
2081	" " Hard Rubber, small.....		75
2081-A	" " " " medium.....		1 00
2081-B	" " " " large.....		1 25
2081-C	" " " " triangular, small.....		1 00
2081-D	" " " " " medium.....		1 25
2081-E	" " " " " large.....		1 50
2082	" " Papier Mache, small.....		40
2082-A	" " " " medium.....		55
2082-B	" " " " large.....		75
For other Pus Basins, see page 398.			
2083	Holcomb's Cotton Carrier, steel.....		35
2084	Spiral " ".....		50
2085	Hard Rubber Cotton Carrier.....		50



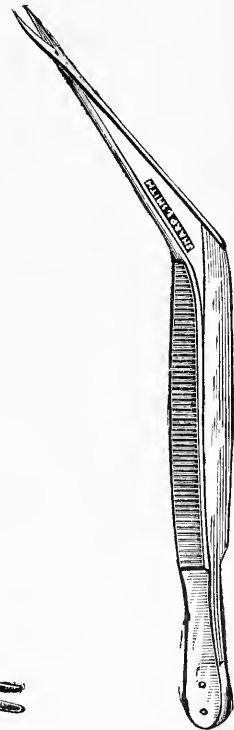
2078



2080-A



2077



2079

All instruments designated by a * are illustrated.

DIAGNOSTIC AND OPERATING EAR CASES.

FIG.		
2086	Dr. A. H. Buck's Pocket Ear Set.....	\$ 5 50
2087	Dr. Samuel Sexton's " "	14 00
2088	Roosa's Ear Case.....	37 50
2089	Dr. A. H. Buck's Operating Case.....	27 00



Fig. 2086. DR. A. H. BUCK'S POCKET EAR SET, CONTAINS:

- | | | |
|-----------------------------|------------------------------|-------------|
| 3 Plain Fenestrated Scoops. | 1 Silver Probe. | 1 Tenotome. |
| 1 Tympanum Perforator. | 2 Holcomb's Cotton Carriers. | |
- Put up in a fine morocco case, $6\frac{1}{2}$ inches long, $1\frac{1}{8}$ inches wide, $\frac{1}{2}$ inch deep.

Fig. 2087. DR. SAMUEL SEXTON'S POCKET EAR SET, CONTAINS:

- | | |
|--|-----------------------------|
| 1 Blake's Ear Snare, with tympanum perforator. | 1 Pure Silver Probe. |
| 2 Abscess Knives. | 1 Tensor Tympani knife. |
| 1 Universal Handle for Knives, etc. | 1 Granulation Knife or Hoe. |
- In morocco covered velvet lined case.

Fig. 2088. EAR CASE, BY D. B. ST. JOHN ROOSA, M. D., CONTAINS:

- | | |
|---|---|
| 1 Roosa's Mirror, with head band and handle. | $\frac{1}{2}$ Dozen Artificial Ear Drums. |
| 1 Set Gruber's Ear Specula. | 1 Tape Measure. |
| 1 Rhinoscopic Mirror. | 1 Scalpel, fine ivory handle. |
| 1 Green's Tongue Depressor. | 1 Bistoury, " " " |
| 1 Blake's Ear Snare, with tympanum perforator. | 1 Conversation Tube. |
| 1 Pair Wilde's Angular Ear Forceps. | 1 Hard Rubber Ear Syringe. |
| 1 Glass Acid Rod. | 1 Tuning Fork, C. |
| 2 German Silver Eustachian Catheters. | 1 Diagnostic Tube. |
| 1 Politzer's Apparatus, with Roosa's attachments. | 1 Hard Rubber Eustachian Catheter, for a child. |
| | 1 Cotton Holder. |
- Put up in a neat morocco case.

Fig. 2089. DR. A. H. BUCK'S OPERATING EAR SET, CONTAINS:

- | | |
|---|---|
| 1 3 inch Mirror, with head band. | 1 Extra Fine Ivory Handled Scalpel. |
| 1 Pair Delicate Angular Forceps. | 1 Myringotome. |
| 1 Set of Drills, with sharp edges. | 1 Furuncular Knife. |
| 1 Set (4) Wilde's Silver Ear Specula. | 2 Curettes, steel handles. |
| 1 Blake's Ear Snare, with pure silver canula. | 4 Cotton Carriers, steel handles, assorted sizes. |
| 1 Extra Fine Ivory Handled Sharp Curved Bistoury. | 1 Porte-acid Glass, with platina applicator. |
| 1 Extra Fine Ivory Handled Blunt End Curved Bistoury. | 1 Middle Ear Probe. |
- Other Ear cases put up to order.

APPARATUS FOR ASSISTING THE HEARING.

PATIENTS' PRICES.

FIG.					Jap.	
2090	Conversation Tubes,	5 feet,	Silk.....		\$8 00	
*2091	"	"	Conical, 3 feet,	Silk.....	6 00	
2091-A	"	"	"	5 " Mohair.....	7 00	
2091-B	"	"	"	3 " ".....	5 00	
*2092	"	"	Straight, 3 "	Silk.....	4 00	
2092-A	"	"	"	3 " Mohair.....	3 00	
*2093	Dipper Ear Trumpets,	large.....			6 00	
2093-A	"	"	medium.....		5 00	
2093-B	"	"	small.....		4 50	
2094	Jointed "	"	"	.....	3 50	N. P.
*2094-A	"	"	medium.....		4 00	\$5 00
2094-B	"	"	large.....		5 00	8 00
2095	Bugle Shape Ear Trumpets,	large.....			4 00	6 00
*2095-A	"	"	medium.....		3 00	4 50
2095-B	"	"	small.....		2 50	3 50
2096	London Hearing Horns,	large.....			5 00	
*2096-A	"	"	medium.....		5 00	
2096-B	"	"	small.....		4 00	
The London Horns furnished in Nickel Plate or Black at same price.						
*2097	Leather Covered Auricles.....				4 00	
2097-A	Silk " ".....				5 00	
*2098	Silver Cornets.....			per pair.	3 00	
2099	" " connected with wire.....			set.	4 00	
*2100	Artificial Tympanum.....			each.	25	
*2101	Apparitor Auris.....			per pair.	6 00	

DEAFNESS AND ITS CAUSES.

APPLIANCES FOR ASSISTING THE HEARING.

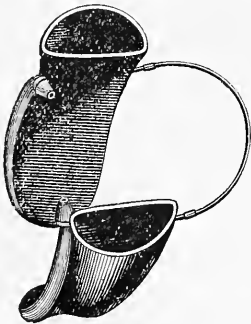
Sound is the result of any impulse conveyed by the undulations of the air to the organs of hearing, which are so constructed as to receive these undulations, and so organized as to become sensible of them, and to convey the impressions to the brain. These organs consist, first and essentially, of a special nerve expanded on membranes and endowed with the property of sensibility to the impression of sound; secondly, of a physical apparatus fitted for receiving and conducting these impulses in their course to the sentient nerve. We may divide the ear into an external, middle and internal portion. The external comprises the auricles commonly called the ear, and the external opening or tube. The middle ear consists of the tympanum or drum, with the ossicular auditus. The internal, or true ear, is termed the labyrinth, and comprises several parts, among which are the auditory nerves, or cochlea. The mechanism of the ear is exceedingly complicated. Although many minute parts compose this organ, yet the seats of disease are few. The drum (membrana tympani), the most delicate portion, is situated near the middle of the tube (Eustachian) which extends from the external opening in the ear to the nose and throat, and forms a partition in this tube, the air on one side reaching the drum from the ear, on the other side from the throat and nose. They lubricate the meatus

EAR TRUMPETS AND TUBES.

and preserve the suppleness of the lining membrane. The wax prevents the introduction of bodies that may be floating in the air, and by its bitterness and unctuousness prevents insects from penetrating the more delicate parts of the internal ear. It must thus appear that deafness must exist in the state of inaction of either the drum, the nerves, the cochlea, the follicles secreting the wax, or the membranes of the passages of the ear. The diseases which affect hearing are most generally of scrofulous or nervous origin, excepting those which occur from violence, or the excessive use of powerful drugs.

Noises in the head are caused by colds. The follicles do not perform their functions, and in consequence of the absence of the lubricating substance the formation of scales or scurf (which it is the function of the follicles to prevent) upon the drum of the ear, ensues. This formation prevents this organ from vibrating in response to slight movements of air which in health move it effectually. This formation in the ear decreases the size of the conducting canal, while it covers up the wax glands, which prevents the healthy wax from coming out. Hence arises deafness. The drum is thickened by a formation of scales. These are imperfectly attached by their edges, and slight movements of air rustle them, while violent movements force them upon the drum, and the scales and drum moving together, produce sound. Hence in a mill or railroad car where there is a great noise, you hear even a whisper better than when in a quiet room. In this case it would be well to consult with a physician. But in most cases our Auricle (Fig. 2097) will be, to say the least, extremely useful. This Auricle is made from different metals, so combined as to secure electric power. It is covered with fine morocco, and, that it may not be conspicuous, is connected with a fine steel spring, with sufficient power to press the soft rubber tubes into the ear. A person with long hair wearing an instrument of this construction can wear it without its being in any way conspicuous or inconvenient. It enables the air to have free access to the drum, and by it a circle of electric nerve power is made to connect from one ear to the other externally, and complete the circle through the nerve internally.

Electricity moves in circles, and the nerve power of the human body is electricity. This fact is illustrated by applying the ordinary magnetic battery to the nerve of a cadavera, and it will cause the subject to rise, the face to grimace, and give power to the nerves which have lost their power, and recall them to life. The Silver Ear Vibrator (Fig. 2099, not illustrated), answers the same purpose as the Auricle in cases of Primary Deafness. Catarrhal Deafness is the result of a cold. Catarrh, as it is usually, is when the lining membrane of the nose is the seat. It commences with a discharge, slight in quantity and of a watery character. As the disease progresses suppuration of the parts takes place, and the violence of the disease may be determined by the nature of the discharge. When the inflammation reaches the covering of the bones of the nose the discharge is distinguished by its offensiveness, and a further progress results in the destruction of the bones of the nose and closing of the Eustachian tubes. Some are affected in damp or



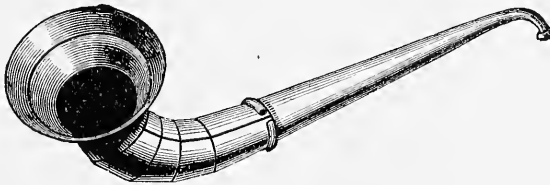
2097

rainy weather with deafness, and cannot account for the cause. It arises from the thickening of the membrane lining the Eustachian tube. It is evident, too, for the radical cure, you must attack the root of the cause of thickening. This may be done by the use of the Nasal Douche, after the method of Professor Thudicum of London, or by the use of most any style of "Nasal Douche."

EAR TRUMPETS AND TUBES.

By a thorough course of this popular and scientific treatment of Catarrh, the abnormal secretions are caused to pass out through their natural outlets. The discharge from the nose will soon cease, as well as the pain in the temple and the noises in the head, when produced by this cause. If the lining membranes of the throat or nose have lost their sensation of taste or smell, they will speedily yield to this treatment, and be restored to their normal condition. For Catarrh in its incipient stages, Dr. Warner's Catarrhal Syringe has been found very useful. This valuable instrument is the result of long study. The hard rubber tube, which is to pass into the posterior nares, is connected with the soft rubber bag by a piece of flexible tube, so as to enable patients to use it themselves simply by compressing the bulb, thus avoiding the unpleasant sensation caused by using the ordinary syringe for that purpose, as you cannot always feel sure of throwing the injection forward.

In cases of Deafness, where the patient has no organic constitutional trouble, is over forty years of age, and enjoys fair average health, he can only expect to obtain relief by the use of the Ear Trumpet. As age increases the deafness becomes worse. To these persons we recommend our Ear Trumpet (Fig. 2094), japanned or German silver. They can be taken apart, and are sufficiently compact to admit of being carried without inconvenience. This Trumpet magnifies the sound so as to require no raising of the voice, and conversation can be carried on in an ordinary tone.



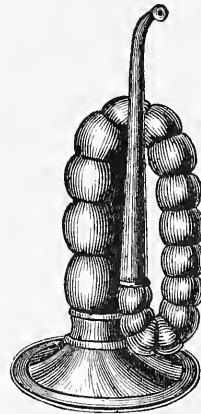
2094

For the benefit of those who desire to hear lectures, attend church or hear public speakers at a distance, we manufacture the Dipper Trumpet (Fig. 2093), with a piece of metal across the bell, perforated with small holes to admit sound. The metal plate acts as an electric conductor in condensing and concentrating sound, greatly vibrating the increased volume of air before it reaches the nerves, thus giving the Trumpet all the more power of increasing sound.



2093

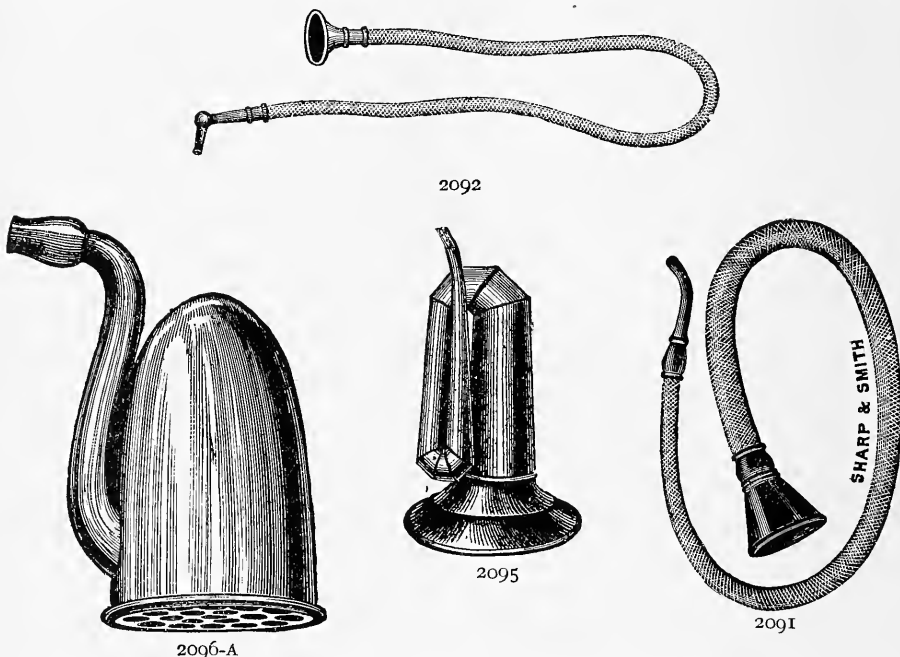
Many persons now supposed to be incurably deaf, might be restored to a respectable degree of hearing—greatly to be desired by themselves, as well as by their friends—by using our Ear Trumpet represented in Fig. 2095A. Corrugated and composed of different metals, it is one of the most powerful Ear Trumpets we manufacture. This Trumpet is of great use where the deafness results from scarlet fever. In many cases the small bones of the ear come away and total deafness ensues.



2095-A

EAR TRUMPETS AND TUBES.

Conversation Tubes (Figs. 2091 and 2092). These we have manufactured expressly for us. They are perfectly flexible, and do not produce an external sound, which is the fault with too many Conversation Tubes. This tube suits the most obstinate cases of deafness, and is particularly convenient at the dinner table and in company, as the wearer can converse in almost a whisper, and private conversation can be carried on without attracting the attention of others.



The most popular of all the Trumpets are the London Hearing Horns (Fig. 2096 A), which are constructed on new and scientific principles, and although they are equally as strong as many of the larger instruments, they answer for those who are moderately deaf, and as they can easily be carried in the pocket and concealed in the hand when in use, they are highly prized by those having them. We have them in black and nickel plated, and in sizes varying from $2\frac{1}{2}$ inches to 4 inches high. The plated ones are finely polished, and present a neat and handsome appearance, while the black ones are preferred by those who wish to conceal them and desire to make as little show as possible.

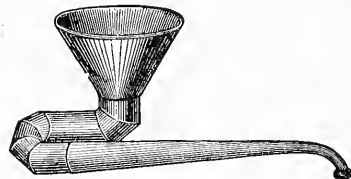
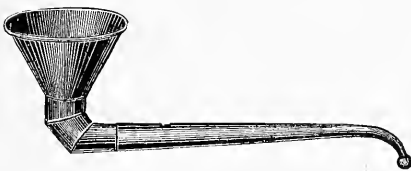
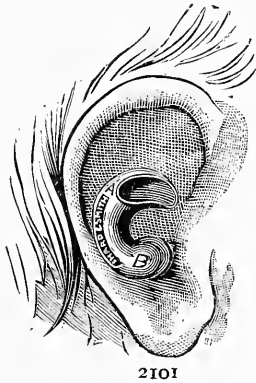
Cornets are the smallest of hearing instruments, and will be found efficient in cases of obstruction of the meatus by reason of contraction or the presence of polypi. As they usually come in contact with tissues that are more or less inflamed, they should always be made from gold or silver. These are shown in Figs. 2098 A and B.



Artificial Tympanums are used to diminish the evil results occurring from perforation of the drum. The Artificial Tympanum is pressed against the remains of the natural one, and the opening thus closed. They are shown in Fig. 2100 C.

EAR TRUMPETS AND TUBES.

FIG.					
2102	Jointed Plain Ear Trumpet, Japanned, small.....	\$	2	00	
*2102A	“ “ “ “ medium.....		2	50	
2102B	“ “ “ “ large.....		3	00	
2103	Double Curve “ “ small.....		2	00	
*2103A	“ “ “ “ medium.....		2	50	
2103B	“ “ “ “ large.....		3	00	
2104	Bell Shape “ “		6	00	



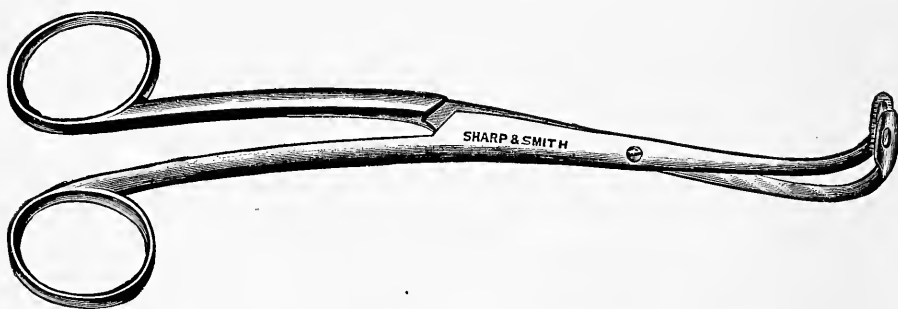
The Apparitor Auris is shown in Fig. 2101 A, and is so shaped that it may be worn entirely within the concha, being almost unobservable on account of its close fit and flesh color. The advantage of this instrument over the cornet consists in having the canal elongated so that the waves of sound that enter the aperture are not diffused, but conducted through the meatus to the tympanum.

Those commencing the use of hearing instruments, especially of Trumpet and Auricles, will frequently be disappointed with first trials, and will complain that sounds are confused, but after a short experience they will usually appear natural, and the assistance derived will be so highly valued that the use of artificial aids will not willingly be dispensed with.

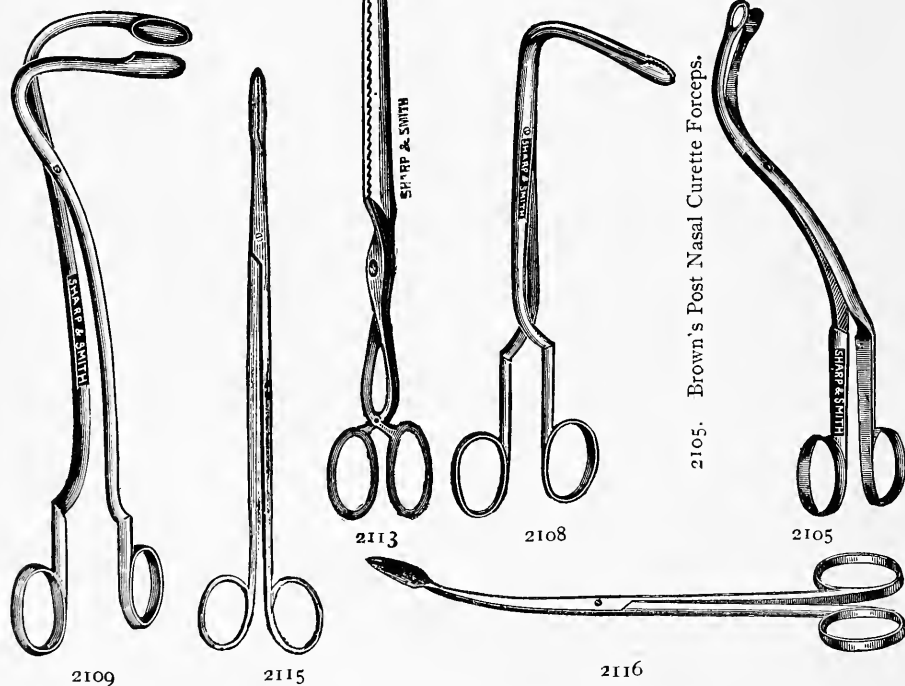
All instruments designated by a * are illustrated.

NASAL INSTRUMENTS.

FIG					
*2105	Brown's.	Post Nasal	Curette	Forceps.	\$3 25
2106	Lowenberg's	"	"	"	3 00
2107	Politzer's	"	"	"	3 50
*2108	Cohen's	"	"	"	2 50
*2109	"	"	Cutting	"	3 00
2110	Stoerck's	"	"	"	3 75
*2111	Wagner's	"	"	"	2 50
2112	"	"	Cutting	"	4 00
*2113	Luer's	"	Polypus	"	9 00
2114	Plain	"	"	short	1 00
*2115	"	"	"	long	1 50
*2116	Gross'	"	"	"	1 60



2111

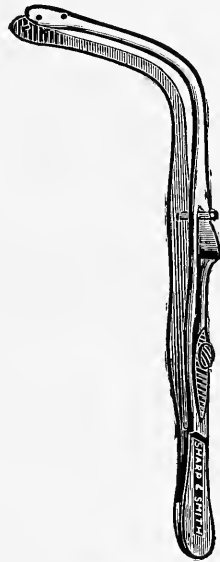


Instruments designated by a * are illustrated.

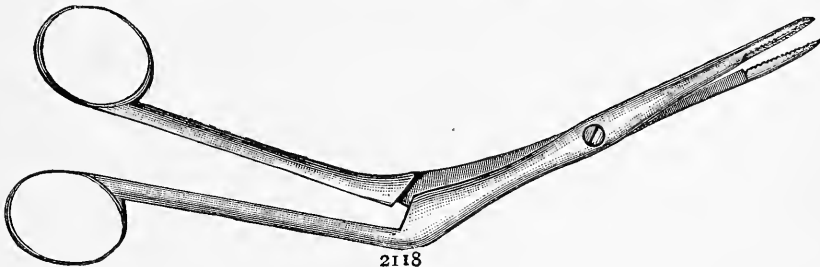
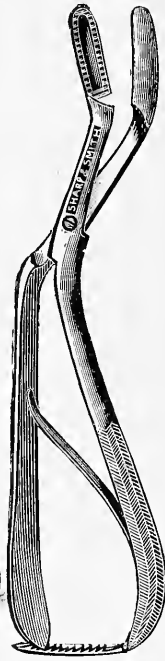
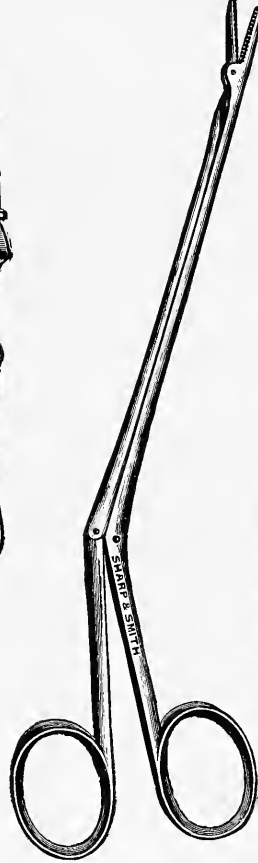
NASAL INSTRUMENTS.

FIG.

2117	Robinson's Pharyngeal Forceps.....	\$ 3 75
*2118	Knight's Nasal "	2 25
*2119	Sajou's Pharyngeal "	2 25
2119-A	" Nasal Bone "	3 00
*2120	Simrock's Polypus "	1 75
*2121	Noÿes' Alligator Nasal Polypus Forceps....	4 50
*2122	Cohen's Evulsion Forceps for Naso-Pharyngeal Tumors.....	3 75

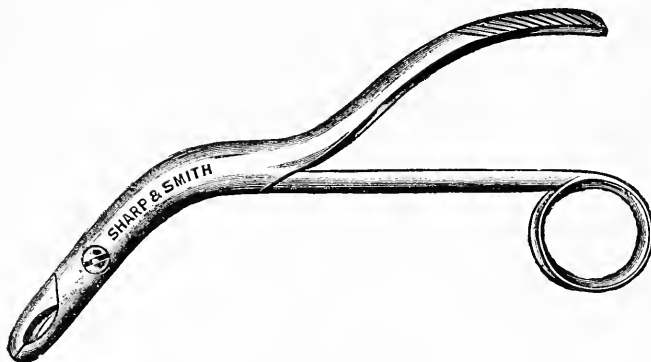


2119

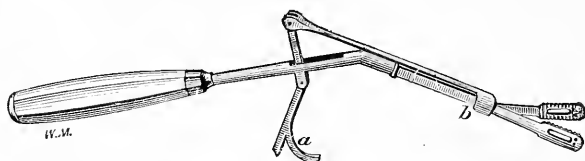


NASAL INSTRUMENTS.

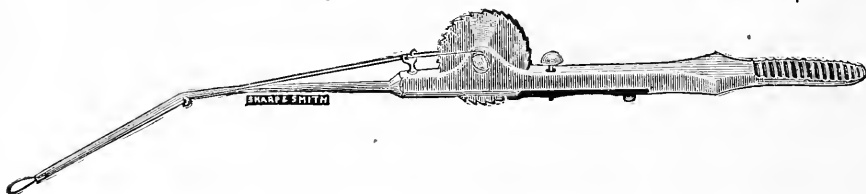
FIG.		
*2123	Jarvis Rongeur Forceps.....	\$ 4 50
*2124	Rumbold's Polypus " .....	....
*2125	" Pharyngo Nasal Forceps.....	....
*2126	McKenzie's Polypus " Snare.....	6 00
*2126A	Penn's Cat Gut Ecraseur.....	4 00



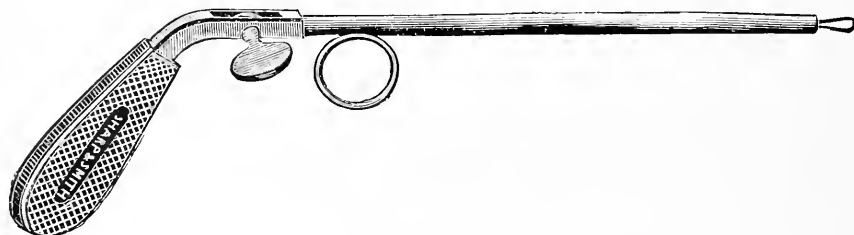
2123



2124



2125



2126

For removing small tumors from the nose, fauces, rectum and uterus. Two very small holes through the pin receive the ends of an "E" violin string, which is doubled and passed through from the opposite end of the tube.

2126-A

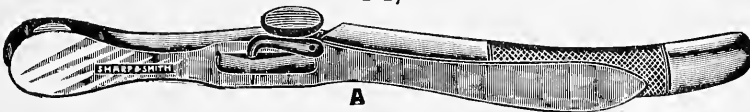
NASAL INSTRUMENTS.

FIG.

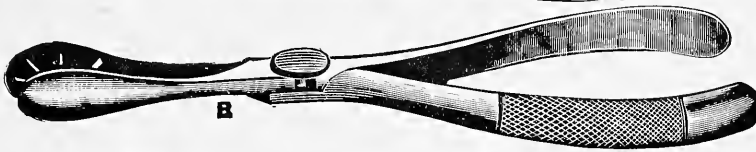
*2127	Jarvis' Septum Punch.....	\$ 6 25
2128	Sajou's (set) " ".....	11 00
*2129	Steele's " ".....	7 50
*2130	Gradle's " Forceps.....	6 00
2131	Bosworth's Rhinoplastos.....	3 00
*2132	Adams' ".....	2 25
*2133	Goodwillie's Nasal Snare Forceps.....	11 25



2127



A



B

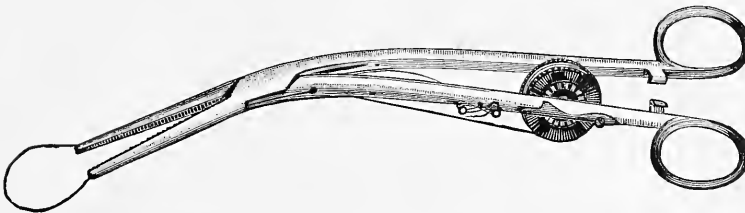
2129



2132



2130

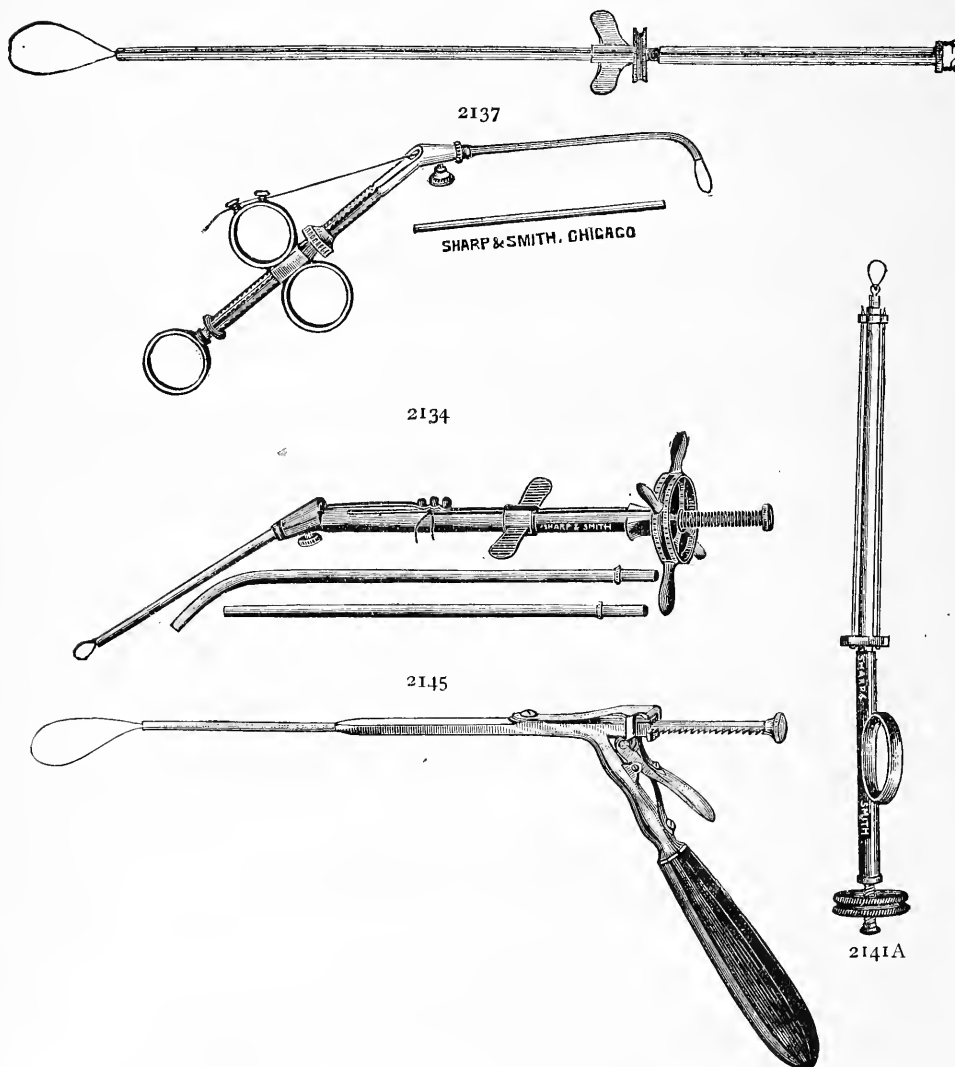


2133

Instruments designated by a * are illustrated.

NASAL INSTRUMENTS.

FIG.		
*2134	Bosworth's Nasal Snare.....	\$5 00
2135	" " " in case.....	6 00
2136	" Set of Nasal Snares.....	9 00
*2137	Jarvis' Nasal Snare, straight.....	2 25
2138	" " " curved.....	2 75
2139	" " " two tips.....	3 00
*2140	Wyeth's " ".....	9 00
2141	Sajou's Modification of Jarvis' Snare.....	2 25
*2141A	Rumbold's " ".....	

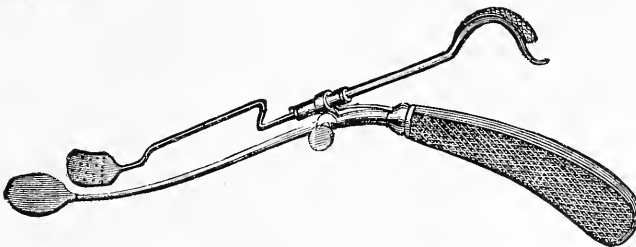
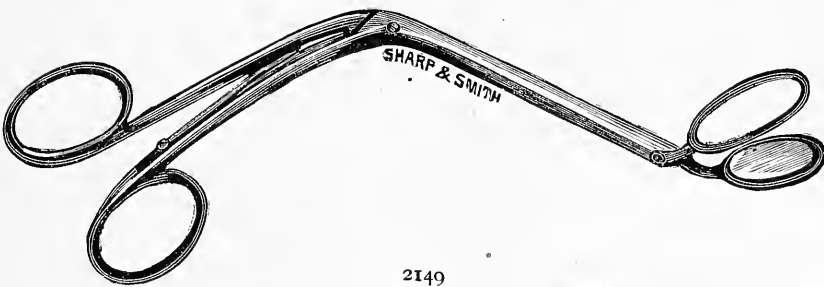
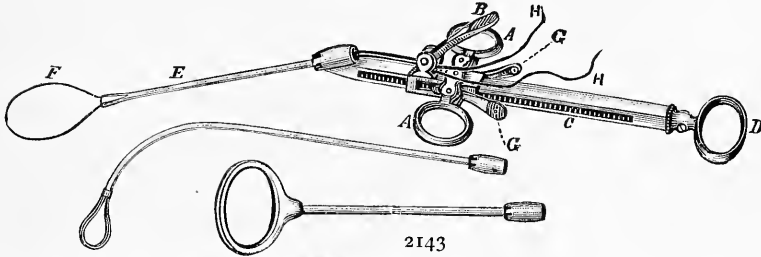
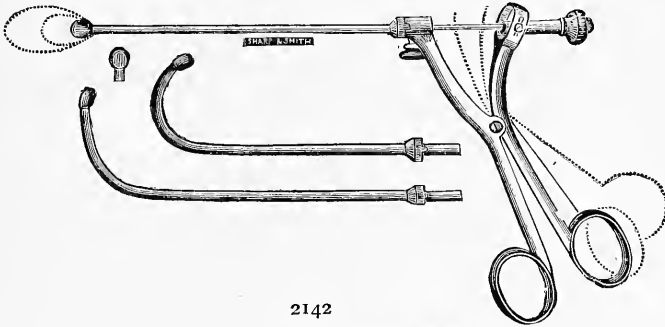


Instruments designated by a * are illustrated.

NASAL INSTRUMENTS

FIG.		
*2142	Sajou's Polypus Snare.....	\$ 6 00
*2143	Allen's " ".....	15 00
2144	Wilde's " ".....	2 50
*2145	Hobby's " ".....	6 75
2146	Green's " ".....	3 50
2147	Ellsberg's " ".....	6 00
2148	Douglass' " ".....	6 75
	Ingals " ".....	4 38
	Piano Wire for Polypus Snare.....	15
	" " 1/4 lb. Bunches.....	75

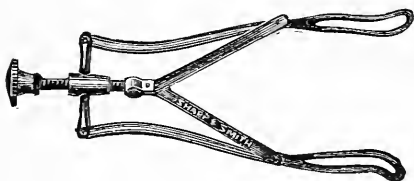
(page 437)



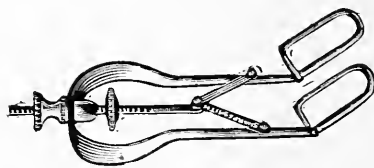
See next page for prices on Rhinoscopes. Instruments designated by a * are illustrated.

NASAL INSTRUMENTS.

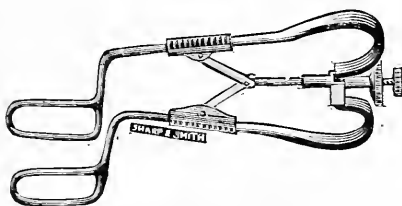
FIG.			
*2149	Duplay's Rhinoscope.....	\$ 6 00	
2150	Plain ".....	60	
*2151	Simrock's ".....	6 00	
2152	Jarvis' ".....	4 50	
*2153	Frankel's Nasal Speculum, different sizes.....	2 00	
*2154	" Improved Nasal Speculum.....	1 75	
*2055	Swift's " ".....	1 75	
2156	" Improved " ".....	2 00	
*2157	Roth's " ".....	1 50	
2158	Robert & Collins' " ".....	2 00	N. P.....
2159	" " " ".....	2 00	H. R.....
	Plain Bivalve " ".....	1 00	(see Ear Instruments).....
	Shoulder " ".....	1 50	(see Ear Instruments).....
	" " " ".....	1 85	with screw, (see Ear Inst'ts)
*2160	Bonafont's Bivalve Nasal Speculum.....	
*2161	Ellsberg's " " " steel.....	3 75	
*2162	Folsom's " " " ".....	1 10	



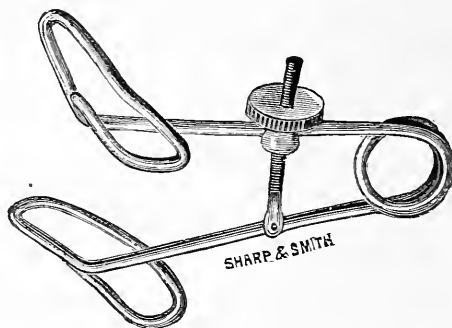
2153



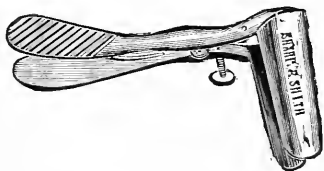
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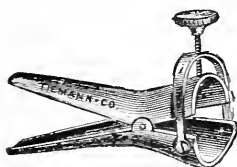
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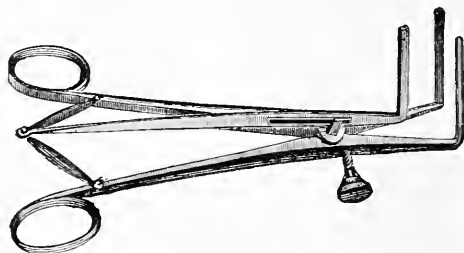
2162



2156



2160

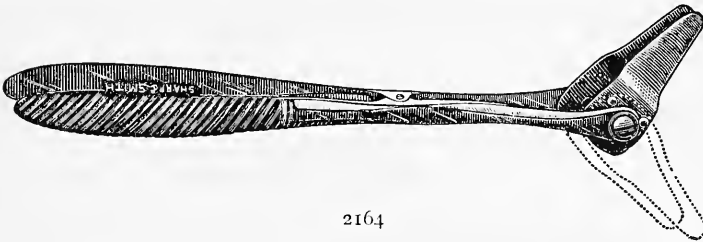


2161

Instruments designated by a * are illustrated.

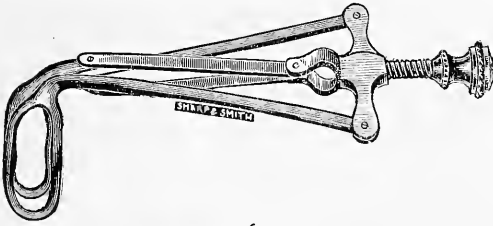
NASAL INSTRUMENTS.

FIG.					
*2163	Goodwillie's Nasal Speculum	.....	.....	\$	75
*2164	Rumbold's " "	.....	.....	3	00
*2165	Leonard's " "	.....	.....	2	50
*2166	Thudicum's " "	.....	.....	1	10
2167	" " with screw	.....	.....	1	25
2168	Sexton's " "	.....	.....	1	50
2169	Roosa's " "	.....	.....	1	85
*2170	Bosworth's " "	.....	.....	1	10
2170A	" Wire " "	.....	.....		75
*2171	" Speculum with shield, reversible to either side for cauterizing	.....	.....	2	00
*2171A	Hotz's Nasal Speculum	.....	.....		85

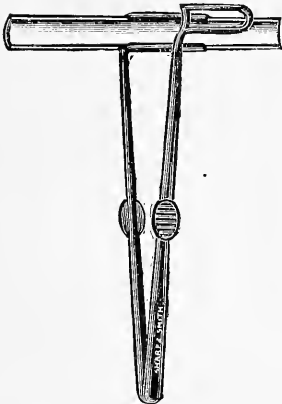


2164

Fig. 2164.—Nasal Speculum, eight inches long, with reversible blades. This length is given to it to enable the patient to hold it in his nasal passage.



2165



2171



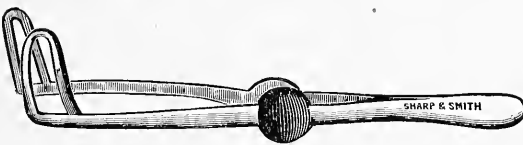
2163



2171A



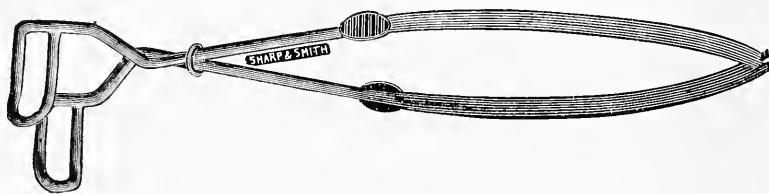
2166



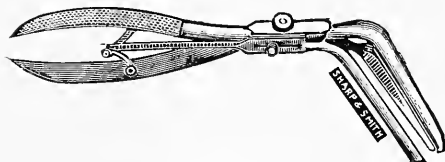
2170

NASAL INSTRUMENTS.

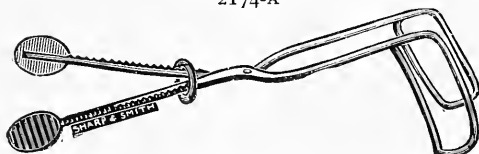
FIG.		
*2172	Simrock's Nasal Speculum.....	\$1 00
2173	Seiler's " "	2 50
*2174	Sajou's " "	1 50
*2174A	Brandis' " "	3 25
*2175	Jarvis' small " "	75
*2176	" (operating) latest Nasal Speculum.....	3 00
2177	Set of three Hard Rubber " "	1 00
2178	" " Allen's " "	1 00
2179	Belloq's Canula for Epistaxis, plated.....	1 85
*2180	" " " " silver.....	2 25
*2181	Gooch's Double Polypus Canula, plated	1 00
2182	Tampon for Epistaxis, Hard Rubber.....	75



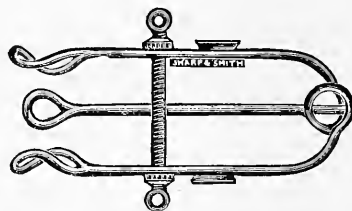
2176



2174-A



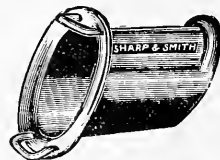
2175



2174



2180



2172



2181

Instruments designated by a * are illustrated.

NASAL INSTRUMENTS.

FIG.

*2183	Leffert's Palate Hook.....	\$ 1 50
*2184	Hard Rubber Palate Retractor.....	50
*2185	Sajou's " ".....	1 50
*2186	Rumbold's Soft " ".....	5 25
*2187	" " " " Curved.....	11 25
*2188	" Inflator for Eustachian Tube, Hard Rubber.....	75
*2188	" " " " " Glass.....	25
2189	Sexton's "	2 60



2183



2184

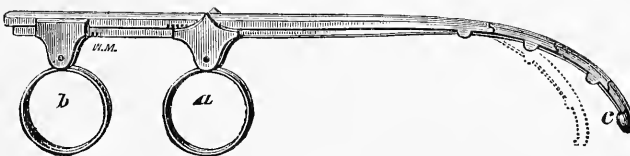


2185



2186

Fig. 2186. Soft Palate Retractor.—*A*, lever to separate the arms. *B*, the soft rubber band that closes the arms, and holds the uvula out of the operator's way. *C*, the lever that raises the wedge. After the instrument is introduced behind the velum, and the arms spread by the lever *A*, then the wedge retains them in this position.

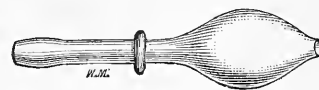


2187

Fig. 2187. Curved Soft Palate Retractor.—The curved extremity is passed along the floor of one nostril until it reaches the pharyngo-nasal cavity; pressing the two ring levers *a* and *b* together causes the curved extremity to draw the velum forward, the probe point *c* preventing the slipping of the velum.



2188

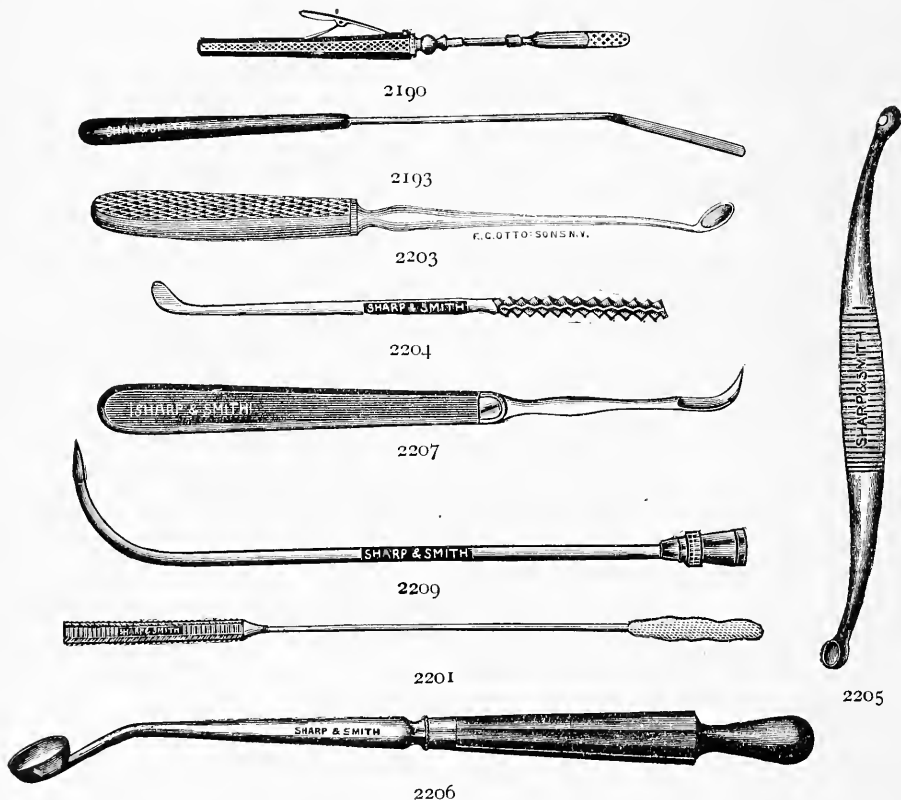


2188

All Instruments designated by a * are illustrated.

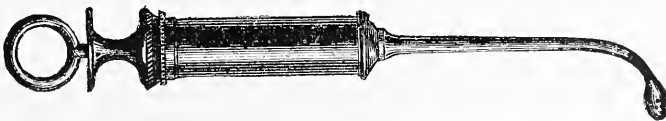
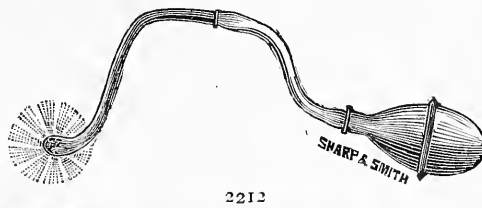
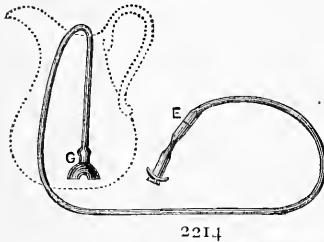
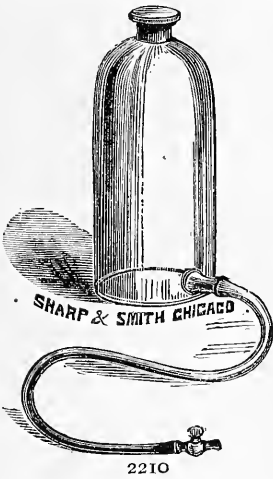
NASAL INSTRUMENTS.

FIG.		
*2190	Sajou's Acetic Acid Applicator.....	\$5 00
2191	" Chromic "	4 50
2192	McCoy's Applicator.....	5 00
*2193	Bosworth's Aluminium Applicator.....	1 10
2194	Posterior Pharyngeal Ingals' Aluminium " (page 439).....	1 50
2195	Bosworth's Aluminium Probe.....	1 10
2196	Hard Rubber Probe.....	35
2197	Silver Probe.....	1 00
2198	Steel "	90
2199	Cohen's Pharyngeal Cotton Holder.....	2 25
2200	Turnbull's " " "	1 00
*2201	Allen's Cotton Holder.....	40
2202	Volkman's Curette	2 25
*2203	Sass' (3 curves) Curette.....each.	1 85
*2204	Spiers' Curved "	75
*2205	Hyde's "	1 15
*2206	Gradle's Spoon "	1 75
*2207	Allen's Septum Knife.....	1 25
2208	Sajou's Periosteal Knife.....	1 15
	Ingals' Knife (page 439).....	
*2209	Sajou's Abscess retro-Pharyngeal Trocar.....	1 50



NASAL INSTRUMENTS.

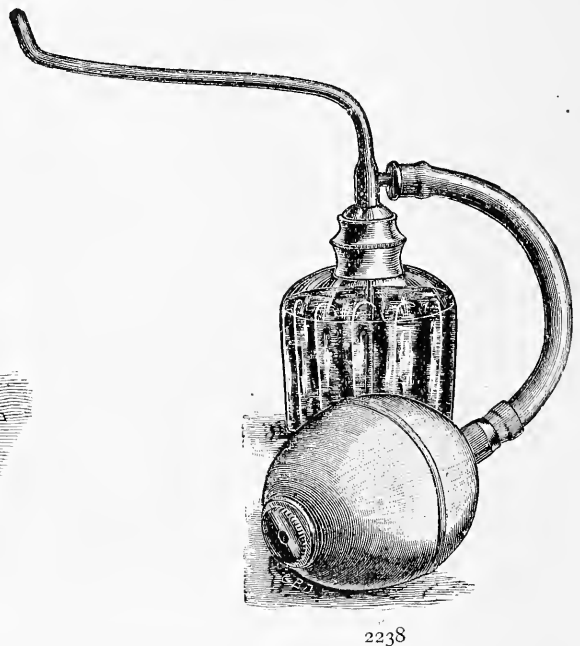
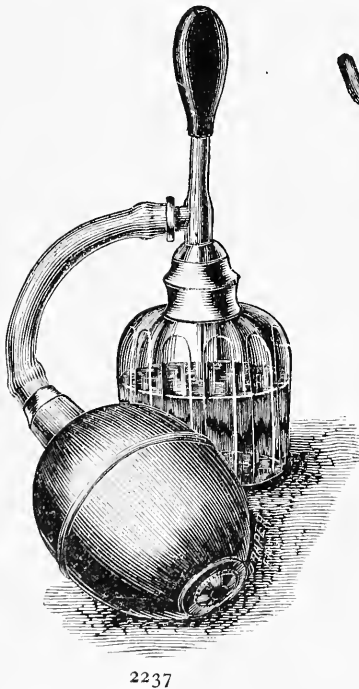
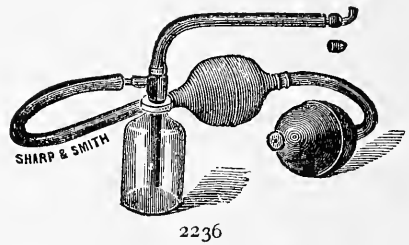
FIG.			
*2210	Thudicum's Nasal Douche, 1 Quart.....	\$1 50	
2210A	" " " 1 Pint.....	1 00	
2211	Sawyer's " ".....	50	
*2212	Warner's " ".....	1 00	
2213	Syphon " ".....	1 10	
*2214	Traveler's " ".....	1 00	
*2215	Sharp & Smith's " ".....	1 50	
2216	Hales' " ".....	1 00	
2217	Nichols' " ".....	1 25	
2218	Potter's " ".....	1 50	
2219	Allen's " ".....	60	
2220	Mead's " ".....	50	
2221	Lincoln's Syphon " ".....	1 00	
2222	Pierce's Nasal " ".....	50	
2223	Fullgraft's Nasal " ".....	1 50	
2224	Bridge's " ".....	60	
2225	" Irrigating " ".....	1 50	
2226	Pomeroy's Double Nasal Douche, tips.....	75	
2227	Oliver's Nasal Douche, 2 tips.....	2 40	
2228	Rumbold's Catheter Douche.....	3 75	
2229	Hazen's Nasal Douche.....	2 25	
	Warner's Catarrhal Syringe (see Index).....		
2230	Howard's " " five tips.....	4 50	
*2231	Hard Rubber Post Nasal Syringe.....	85	



Instruments designated by a * are illustrated.

NASAL INSTRUMENTS.

FIG.		
*2232	Leffert's Nasal Spray, one tip.....	\$2 25
2233	“ “ “ three tips	3 00
2234	Hall's “ “ two tips	2 50
2235	Roosa's Post Nasal Spray.....	2 50
*2236	Sharp & Smith's Nasal Spray, two tips.....	2 00
*2237	No. 3 Nasal Spray.....	1 50
*2238	No. 7 Posterior Nasal Spray.....	1 50

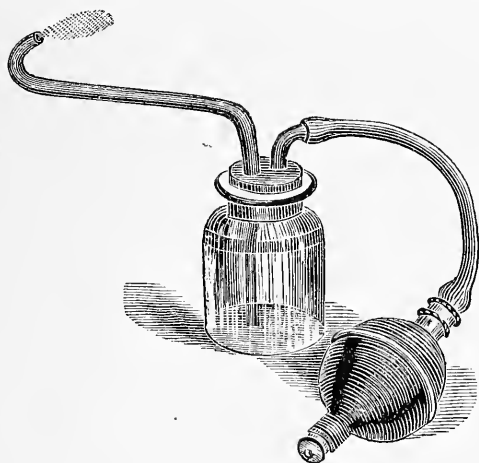


Instruments designated by a * are illustrated.

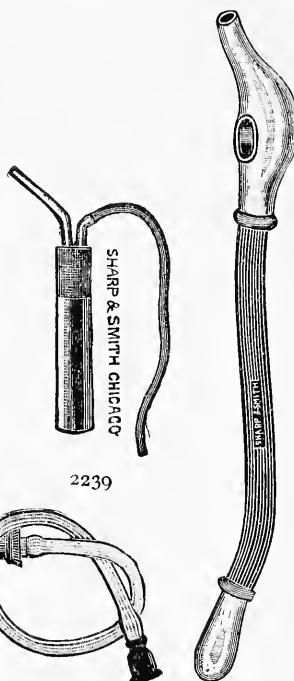
NASAL INSTRUMENTS.

FIG.

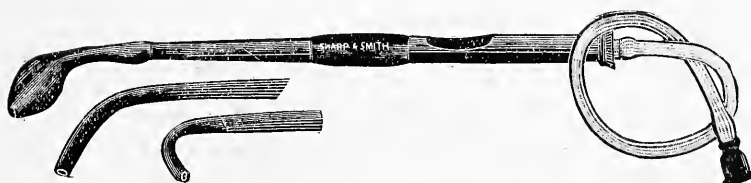
*2239	Bishop's Powder Blower for Pocket.....	\$	50
2241	Leffert's H. R. Powder Blower, one tip	2	00
2242	Richardson's " " three tips.....	2	75
*2243	Robinson's " " " " " " " " " "	2	25
*2244	" " " " with mouth piece, three tips	3	75
2245	" " " " reversible, two tips.....	3	25
*2246	Morgan's " " " " " " " " " "	5	00
2247	Smith's " " " " two tips.....	2	25
2248	" " " " three tips.....	2	50
*2249	C. & T.'s " " " No. 213.....	2	25
*2250	Sajou's " " " " " " " " " "	50	
*2251	No 12 Posterior Nasal Powder Blowers.....	1	50
*2252	No. 8 " " " " and Douche.....	1	75
*2253	No. 1 Mattson's " " " " " " " " " "	1	25
*2254	No. 2 " " " " " " " " " "	1	50



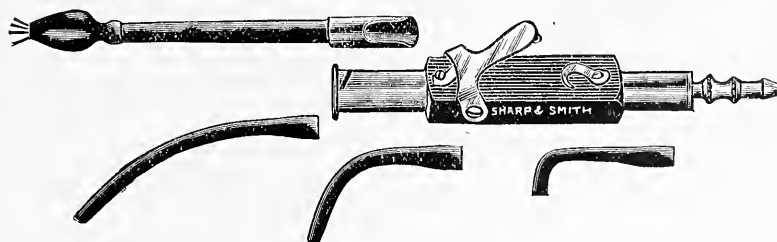
2243



2239



2244



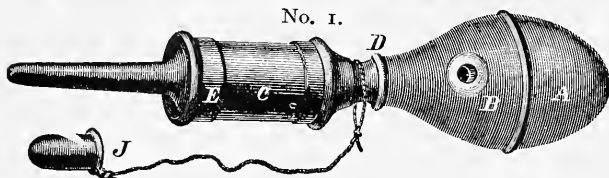
2246

Description of other Powder Blowers see following page.

NASAL INSTRUMENTS.

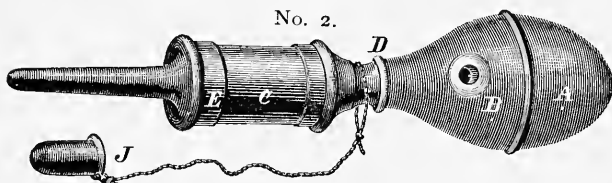


No. 1.



2253

No. 2.

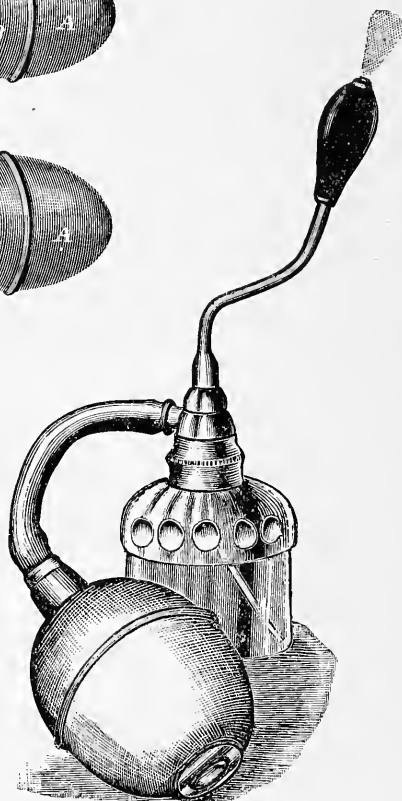


2254

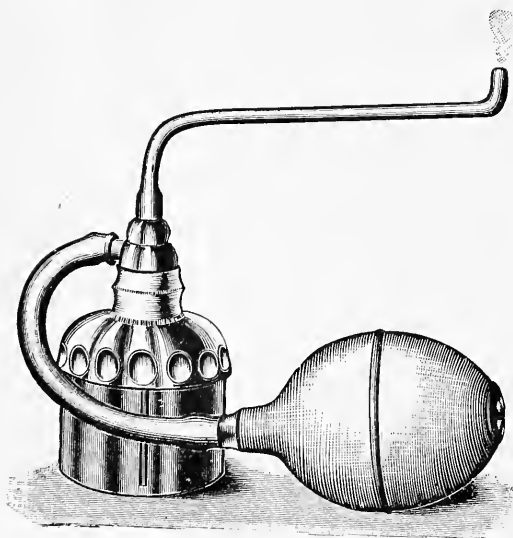
Patented.

The Powder Projector, to be used in the treatment and cure of *Nasal and Bronchial Catarrhs*, is acknowledged, by all who have seen it, to be the best instrument of the kind that has yet been introduced.

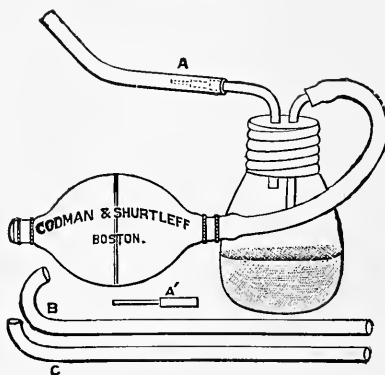
The chamber will hold powder enough for numerous applications. In this respect, it is a great improvement upon the ordinary *powder blowers* which have to be filled at each puff of the powder. The instrument being in an axial line, it may be carried in a side pocket, provided the outlet tube, *E*, is closed at its end by the rubber cap, *J*. The *naso-pharyngeal H, F*, shown in No. 1, will be used by physicians to introduce any special powder into the posterior nasal cavities from behind the soft palate, without invading other portions of the respiratory tract.



2252



2251



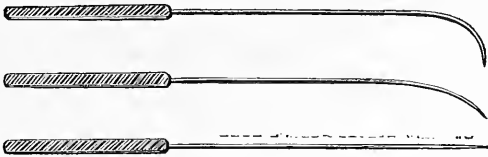
2249

NASAL INSTRUMENTS.

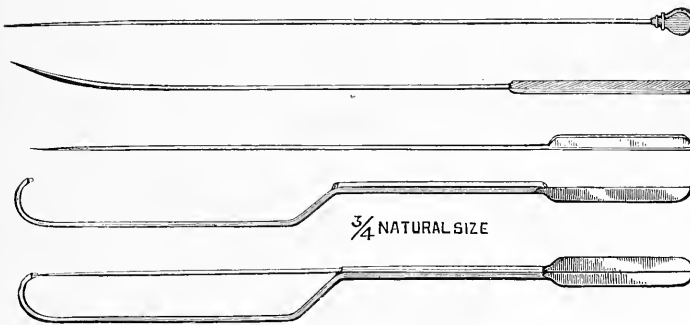
FIG.		
*2256	Sharp & Smith's Chisel for Rhinoplastic Operations.....	\$1 15
*2257	Spicker's Nasal Chisel with Shoulder to prevent too deep penetration	75
*2258	Jarvis' Transfixing Needles, each.	75
*2259	Swazey's " " set.....	3 00
*2260	Rumbold's Pharyngeal Mirror.....	7 50
2261	Nasal Bougies, Metal set of, each.....	60
2262	" " Gum, all sizes, seven each.....	50
2263	Woake's Nasal Plough.....	2 00
2264	Brace for Dislocated Septum.	15 00



2256



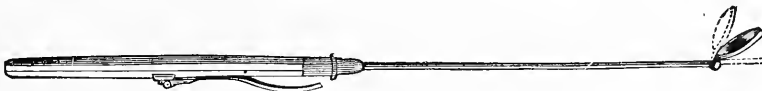
2258



2259



2257



2260

Rumbold's Hinged Pharyngeal Mirror.—By pressure on the lever on the handle, the mirror may be made to take any desired angle, thus reflecting the posterior, superior and anterior surfaces of the pharyngo-nasal cavity, and, by turning the reflecting surface toward the larynx, this passage can also be seen. Rotation on its axis reflects the lateral surfaces.

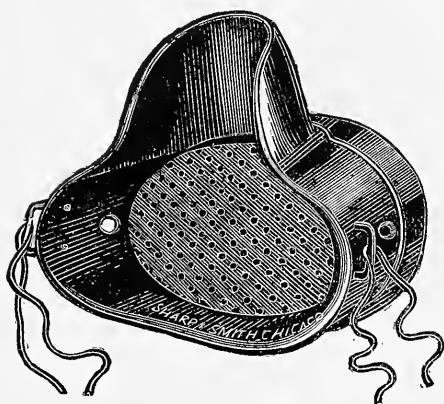
Instruments designated by a * are illustrated.

NASAL INSTRUMENTS.

FIG.			
*2265	Anti-Dust Nose and Mouth Respirator.....	\$ 1 80	
*2266	Nose and Mouth (ordinary) “	1 50	
2267	Nitz's Nose and Mouth “	1 50	
*2268	Tyndale's Nose and Mouth “	2 60	

THE ANTISEPTIC ORO NASAL RESPIRATOR.

(TYNDALE'S RESPIRATOR.)



2268

The Respirator is manufactured in hard rubber, or of brass nickel plated, made to fit accurately the mouth and lower part of the nose. A membrane in the shape of a sieve separates the main body of the inhaler from a detachable cup (also perforated) for the reception of absorbent cotton, sponge, lint or oakum, upon which is dropped the antiseptic to be used. Openings on either side of the mouth-piece allow of the escape of exhaled air. The respirator is fastened behind the ears by thin round elastic ribbons, or by spectacle

wires, as desired. It is small and portable, the hard rubber instrument weighing only one ounce. The antiseptic remedies chiefly used for more or less continuous inhalation, are iodoform, eucalyptol (Sanders'), creosote, phenic acid, and oil of turpentine.



2266



CODMAN & SHURTLEFF,
BOSTON.
2265

NASAL INSTRUMENTS.

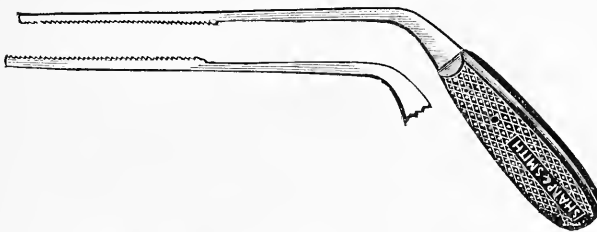
FIG.		
*2269	Sajou's Saw, Cutting Edge down..	\$1 50
*2270	" " " " up.....	1 50
*2271	" Exostosis Saw.....	1 50
*2272	Bosworth's Saw.....	2 25
*2273	Noyes' "	2 25
*2274	Rumbold's Heavy Nasal Scissors for Clipping Turbinated Bones and Growths on the Turbinated Process.....	
*2275	Jarvis' Nasal Scissors.....	6 75
*2276	F. Hamilton Potter's Nasal Scissors, see description next page..	
*2277	Knight's Nasal Scissors.....	2 25



2269



2270



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2274



2271

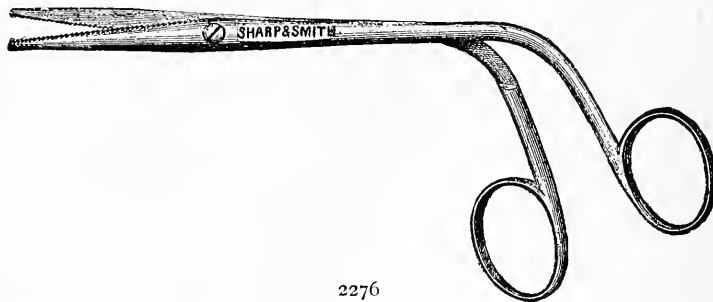


2273

Instruments designated by a * are illustrated.

A NASAL SCISSORS.

By Frank Hamilton Potter, M. D., Lecturer on Laryngology, Medical Dept. Niagara University.



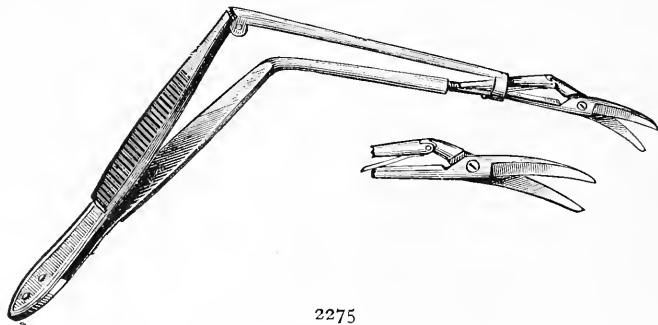
2276

These scissors can be used with great advantage in many operative procedures upon the nasal passages. The cut above illustrates a new form of the instrument, which it is thought, possesses sufficient merit for publication.

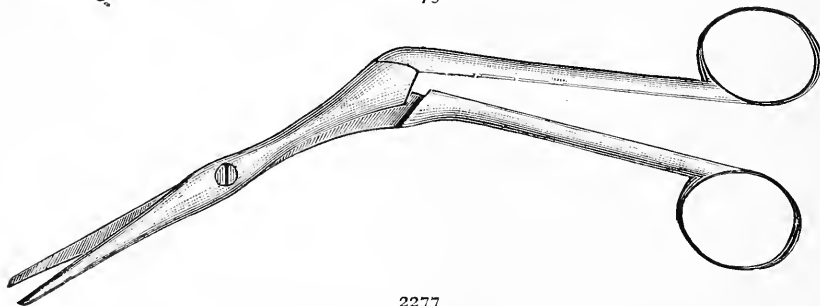
Attention is called to the following points:

1. The hand of the operator is always below the line of vision, whether the instrument is open or shut.
2. The blades are one and five-eighths inches long, and will thus grasp large growths; or, with but a slight movement of the handles, they can be opened sufficiently to trim the edges of wounds. The latter point is well illustrated in the cut.
3. The cutting edges are serrated, so as to make an uneven wound, and thus favor the coagulation of blood.
4. It is strongly made, and thus allows, when necessary, the use of considerable force.

Other scissors have been devised embodying some of the points mentioned above, but it is believed that this instrument has so combined them as to increase the practical value of the scissors in nasal surgery.



2275



2277

SOME NEW NASAL, PHARYNGEAL, AND LARYNGEAL INSTRUMENTS.

By S. SHERWELL, M. D., Brooklyn, N Y.

FIG.				
*2278	Dr. S. Sherwell's Nasal Scissors, No. 1.....	\$	4	00
*2279	“ Pharyngeal, Scissors, No. 2.....		5	50
*2280	“ Nasal “ No. 3.....		5	50
*2281	“ Laryngeal “ No. 4.....		11	00
*2282	Dr. Prince's Spool Eyed Needle.....		3	50

In connection with my dermatological work I have to do with a not inconsiderable number of diseases of the upper air passages, often certainly as syphilitic annexes, but far more frequently of the character of non-specific affections. At one clinic, that for skin and throat diseases at the Brooklyn Eye and Ear Hospital, I see about five hundred new throat and nose cases each year, which, together with private practice of the same kind, and duties in other hospitals, would bring the total amount to very considerably over one thousand cases annually.

I have consequently had to meet, and get over as best I might, most of the difficulties that occur in these regions in the way of operative interferences. And although I have a fair array of instrumental armamenta for that special work, still I suppose no man has at his command all the special instruments made for help in such cases; and in fact, sometimes, if not frequently, he is called upon to either modify some existing instrument, or to devise new ones (as I claim to have done in the instruments I now lay before you) to meet the exigencies of the existing situation, or to supply deficiencies. The instruments in question, I hope, in many cases will serve to fill the traditional “long felt want,” and I shall publish them as Sherwell's Nasal, Pharyngeal and Laryngeal Scissors.

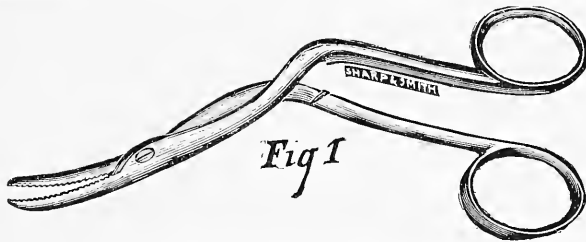


Fig. 2278.—Nasal Scissors.

The nasal scissors are intended for removal of neoplastic growths, or hypertrophic tissue, from the anterior or middle, or even the deeper portions of the nares, and consist of a pair of serrated blades similar to the alligator-tooth scissors, slightly concave-convex, and with handles bent downward in the long axis so as not to obstruct the vision while operating.

The pair shown were made five months ago for operation on the nose, for the removal of hypertrophied turbinated tissue in the person of a well-known professor of surgery, and succeeded in their purpose fairly well. It will be noticed that they are best adapted for the left nares—on that side the trouble was present in this case; but they can be, and have been, used for right nares by inverted handling. The notched teeth prevent slipping and pushing of the tissues away, as can be best demonstrated by cutting a piece of India rubber with them, and then doing so with the ordinary smooth scissor-blades. It will be noticed, also, that the shanks of the handles are narrowest when the blades are open nearly, if not fully, to the greatest necessary extent.

Figs. 2 and 3, pharyngeal and nasal, I give in order of priority of make.

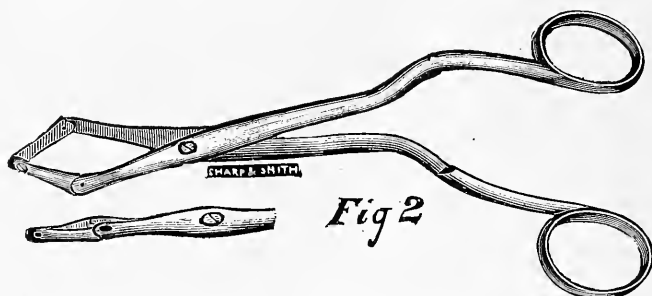
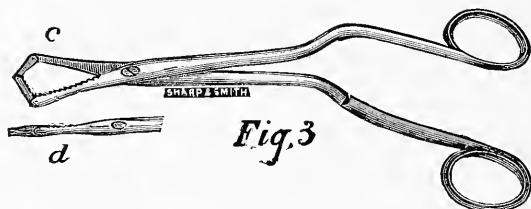


Fig. 2279.—Pharyngeal Scissors.

In Fig. 2 I have tried to construct an instrument capable of being used by any one, however inexpert; that should run no risk of piercing the pharynx, or the important vessels back of the tonsils, etc., no matter what unguarded movements a nervous or intractable patient might make during the operation. This is intended to trim a pharynx, to cut out small teat-like projections of a fretted or ragged tonsil, which are so often seen—and which are, from their size and shape, impossible to remove by the tonsilotome—and also as a most useful uvulotome. The advantage, so readily seen by the expert, of its needing no help with forceps—thus leaving one hand free for tongue depression or for steadying the head of the patient—seems to me obvious enough; and it has certainly so proven in the relatively few cases in which, owing to its recent make, I have had an opportunity to use it.

The instrument, as will be noticed, is an absolutely pointless scissors, hinged about one-third of the distance from the extreme end, and thus composed, as will be seen, of four blades, but forming but two, as it were, by cutting at the hinged-joints as well, when the handles are closed.

The instrument when open, and it should be ordinarily introduced that way if the pharyngeal space is shallow, has an inside cutting surface something like the old Roman spear head, the apex directed toward the operator; it needs but one word to explain why that is made so: This serves to thrust the inclosed tissues forward to the operator instead of away from him, as is the case with the ordinary curved or straight scissors.



c, Blades open; d, Blades close

Fig. 2280.—Nasal Scissors.

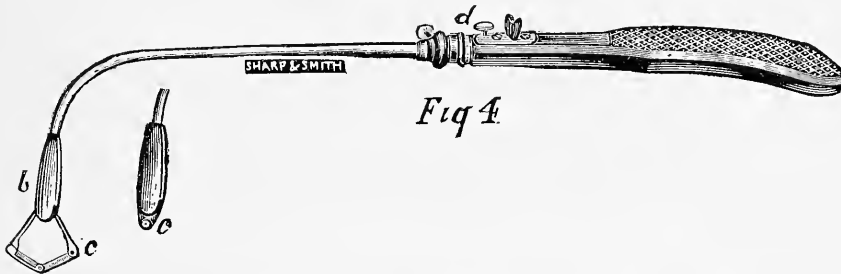
I think this idea has the merit of novelty at least, for I cannot recall any other instrument in which the cutting is going on all around at the same moment, save in *écraseurs*.

* By draughtsman's error the proximal blades are not made long enough; angle of distal blades correct; the lumen should be considerably longer.

I have purposely given Fig. 3 out of its natural sequence, although it is intended for the same use as Instrument No. 1, *i. e.*, for the removal of hypertrophic or other tissues from any part of the anterior or deeper nares. I think it has many advantages over the first shown, but it is more complex. It is, as will be seen, but a modification of the pharyngeal scissors just described, but is more delicate, and has serrated edges. It will be noticed that the inside cutting edge is not that of the Roman spear, but rather that of the Indian arrow head or javelin; this is accomplished, as is evident, by making the site of the hinged joint nearer the extremity of the blade. I operated with it on January 29, 1887, the day it came from the maker's hands, having reserved a patient with the growths above named; it worked very well. It needs no special instruction in its use, is absolutely free from danger, and causes, it may be said, no hæmorrhage.

I think the instrument made a little stronger might be better.

The last instrument (Fig. 4), though it has, and must have, more limited use and a far narrower circle of users, I am somewhat enthusiastic over. Probably all laryngologists have been bothered (we may take the confessions of the most noted, at least, that they have been) to get hold of and crush or cut, or both combined, those little or big neoplasms that occur, fortunately, relatively so rarely in the recesses of the larynx. I average three or four laryngeal tumors, I think, annually, and have a fair supply of Stoerk's, Mackenzie's, Schrotter's, Fauvel's, etc., instruments; but every now and then I have been exceedingly annoyed at the elusiveness of these little tumors situated on the vocal cords and elsewhere in that vicinity. I have sometimes tried all my own tools, and borrowed others, and worked till my patience or that of the patient was exhausted; this is apt more particularly to be the case in and of those sessile outgrowths, papillomata, or what not, from one or the other vocal cord.



a, Tube; b, Sheath, cutting edge below slot; Instrument retracted into sheath; d, Sliding retractor grip on wire.

Fig. 2281.—Laryngeal Scissors.

The instrument now shown is then adapted to one of Schrotter's tubes and handles, and consists virtually of the same idea as that of the hinged and jointed four-bladed scissors just as given in the preceding two, naturally much lessened in size, and with yet a different lumen. The instrument is introduced closed into the larynx, allowed to expand by the automatic spring arrangement on pressing the wire attached to the finger-piece, and when, as the expert will know, it is at or about the site of the growth, is redrawn up into the tube, and into the slot in the tube, by retracting finger pressure.

The instrument may not cut the growth off cleanly, but a very slight pushing and retracting will divide the tissues met with there. The cleanness of separation is of little consequence anyhow, for we know, as a matter of fact, that the nutrition of these small neoplasms once essentially interfered with by crushing or cutting, they tend to disappear, as do warts and such by astringent and alterative applications being applied with the brush, etc.

I believe this instrument to be a good addition to the existing armamenta for laryngeal operation, and hope it and the others will commend themselves to the gentlemen more especially interested in such work.

Owing to its recent make I have had but one opportunity of using this instrument on a laryngeal growth; it succeeded then admirably. One point omitted in description of instrument is, that there is a screw-joint at junction of shaft and tube, permitting any degree of rotation of cutting surfaces.

I also believe that the principle of this hinged and pointless scissors would adapt itself for use in some of the mucous openings and cavities of the body. The four blades closing at once give it an essentially *écraseur*-like action, so that hæmorrhage is usually extremely slight.

(Extract from the *American Journal of Ophthalmology*, February, 1887.)

PRINCE'S SPOOL EYE NEEDLE.

By E. A. Prince, M. D., Jacksonville, Ill.

The accompanying cut of my spool advancement needle was received with the request that an account of it be given to some medical journal for publication.

Its necessity first became evident about six years ago. In attempting to correct an internal strabismus of moderate degree, the capsule of Tenon was sufficiently lacerated to allow the tendon to retreat so much as to occasion an extreme external squint, decidedly worse than the original deformity.

Stimulated by the prospect of disgrace, I extemporized a hook, after drawing the temper of a surgical needle, and fortunately succeeded in advancing the retracted muscle, which was then secured to its proper place with a perfect cosmetic result.

A study of this case developed the operation of "advancement of the rectus," together with the capsule and conjunctiva, published in the *St. Louis Medical and Surgical Journal*, June, 1881, and in Noyes' "Diseases of the Eye," page 116. The operation was improved by a pulley modification, which appeared in the *New York Medical Record*, August 8, 1885, with a cut of the needle then in use, after the manner of the corkscrew-staphyloraphy needle.

The antiseptic importance of keeping the thread from touching the face, hair or clothing, together with the realization of its extensive usefulness in cauthoplasty and other operations on the conjunctiva, led to the conception that it merited a spool in the handle, to carry antiseptic silk, shielded from contact with pyogenic organisms.



2282

This requirement was met in August, 1885, by the introduction of a bobbin, *a*, to carry about thirty feet of silk, which issues from a very small opening in the shield and passes through the eye of the needle, *b*, to be caught by toothed forceps—after the tissues have been transfixed.

The loop suture for advancement is made by transfixing the rectus a second time from within outward, catching the thread and withdrawing the needle before cutting it off. The thread for the anterior fixation point (pulley) should be entered one or two millimeters from the cornea, slightly into the

dense tissue, which purpose is better served by the sharpness and delicacy of a No. 25 eye needle. This thread is then tied to encircle one branch of the loop suture in a form of pulley over which it is drawn to any degree of tightness, and tied with a surgical bow-knot, to be modified or made secure after an interval, when a perfect position shall have been established. The silk which has been employed is iron-dyed No. 2. It is first soaked in a one-tenth per cent. sublimate solution, dried, waxed (to prevent untwisting), and treated with iodoform in vaseline (three per cent.), when, wound on the spool, it is always ready for use.

FIG.

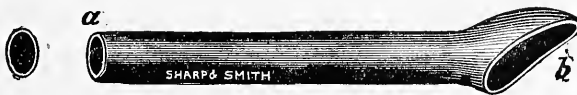
2283	Bosworth's Permanent Clamp.....	\$ 2 75
	Quier's Foreign Body Extractor (see index).....	2 00
2284	Breathing Inhibitor.....	2 00

NASAL INTUBATION.

By D. H. Goodwillie, M. D.

On this occasion it is only my purpose to introduce to you a method of nasal intubation as a valuable aid in the treatment of intranasal disease, and at some future time to give more in detail the result of an experience of some years of its use.

My first efforts began by the use of pure rubber gum tubing of different sizes and strength, and made applicable to each case by such impromptu means as I had at command. These experiments, after being carried on for some time, were so encouraging that I had the tubes made in soft rubber and platinum or aluminium from models that have proved by experience to be of practical application. These improved tubes have given me such good results that I merely call your attention to them for your consideration.



These tubes are oval (α) in shape and of the same size, with the exception of the anterior end (β), that is shaped so as to fit the vestibule of the nostril, and by that they are retained in place.

They are made in different sizes, $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter, and in length from $2\frac{1}{2}$ to $3\frac{1}{2}$ inches, but may readily be cut to any desired length.

The metal tubes can be changed in their caliber by passing through them a core of the desired shape. The anterior end may be soft rubber, as it is more comfortable by its flexibility in the vestibule of the nose.

The small rubber tubes are made use of at the beginning of the treatment and changed to larger ones until there is normal space or the deformity has been corrected. Then the metal tubes may be used if so desired, as they allow freer respiration through them. The tube is put into the nostril by raising the end of the nose and gently passing it into the inferior meatus, then releasing the end of the nose and passing the anterior end into the vestibule. They cannot be seen externally, and so can be worn and treatment carried on without any unsightly appearance, or even knowledge of their presence.

They can be readily removed by the patient for cleansing and returned to the nostril. Some of my patients have worn them constantly for months without discomfort, and always with benefit.

I will simply refer to some of the nasal diseases in which they have been made use of, viz.:

1. Intranasal hæmorrhage.
2. Fractures of the nose, internal and external.
3. Deviations of the cartilaginous and bony septum after the necessary surgical operation of section or removal of exostosis.
4. After the removal of hypertrophic turbinated tissues or polypi, whether by the cautery or snare.
5. Hypertrophies of the soft tissues without an operation, when worn for a sufficient time to produce absorption.

Beginning on the following Page is a

LIST OF INSTRUMENTS

DEvised BY

E. FLETCHER INGALS, M. D.,

CHICAGO, Ills.

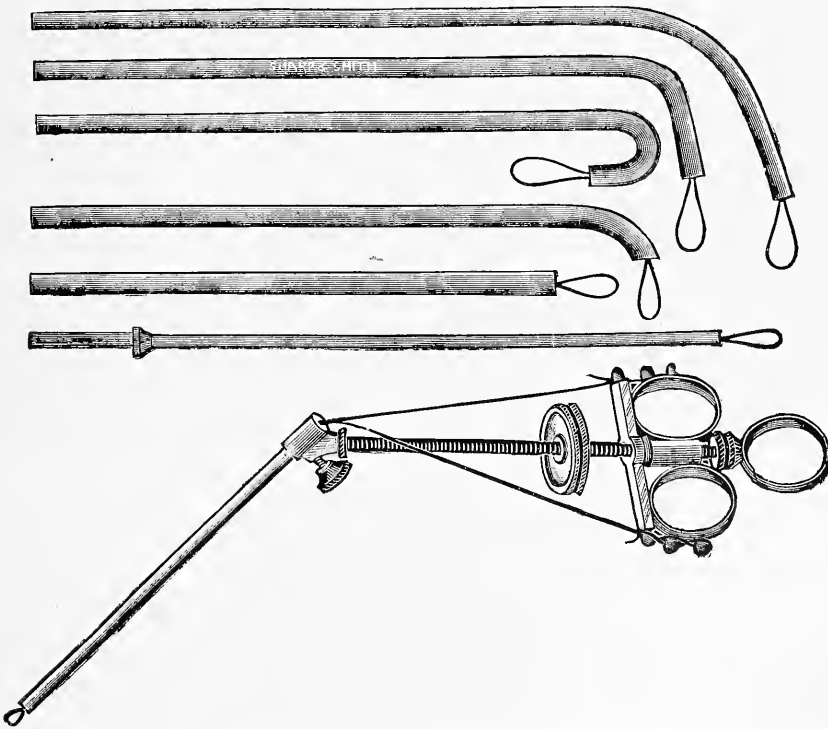
COMPILED BY

JNO. EDWIN RHODES, M. D.,

CHICAGO, Ills.

Pages 437 to 446 inclusive.

DR. INGALS' NASAL INSTRUMENTS.

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2285

Fig. 2285.—INGALS' COLD WIRE NASAL SNARE.

(For description, see following page.)

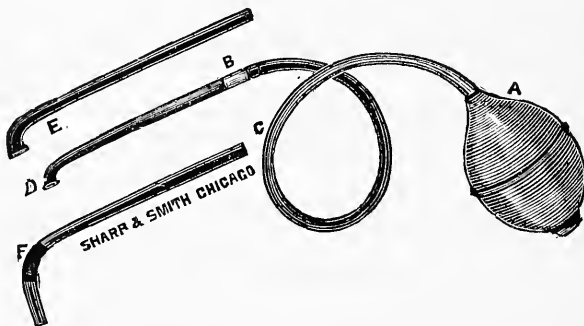
DR. INGALS' INSTRUMENTS.

FIG.			
*2305	Ingals' Head Band.....	\$	1 50
*2306	" Set of Spray Tubes with rack.....		3 50
*2307	" Nasal Saw.....		1 75
*2308	" Rubber Tampon.....		75
*2309	" Tonsil Forceps.....		3 00
*2310	" Laryngeal Forceps, any style.....	each.	3 50
2311	" Case of Instruments.....		22 00
*2312	" Cautery Battery.....		50 00

Fig. 2285.—INGALS' COLD WIRE SNARE.

(For illustration, see preceding page.)

This is a well-constructed snare, with steel post and six tubes. Suitable for removal of tumors, hypertrophied tissues, foreign bodies, etc., in nasal cavities, pharynx and larynx. It is armed by means of a piece of No. 5 piano wire doubled into a loop, the ends being passed through the tube and wound about the posts securely. When additional traction power is needed the small wheel may be run down upon the horizontal bar, and turned as may be desired in cases where it is necessary to cut through the growth slowly, in order to avoid hemorrhage. In this way twenty, thirty minutes or more may be employed in the removal of a growth.



2287

Fig. 2287.—INGALS' POWDER BLOWER.

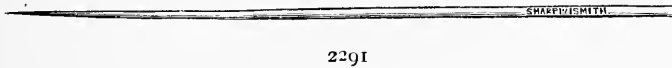
Consists of a rubber bulb with rubber tubing attached, 12 inches in length, provided with straight and bent glass tubes. The distal ends of the glass tubes are slightly spread. When the powder has been placed in the rounded end of the glass tube, the rubber tubing is forced over that end, the glass tube seized by thumb and fore finger of the right hand and the bulb lying in the palm of the hand is compressed by the remaining fingers of the hand. In this way the other hand is free for use of the nasal speculum, throat mirror, etc.

Fig. 2287-a.—INGALS' NASAL SYRINGE.—(Not Illustrated.)

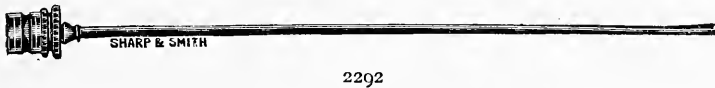
The fluid to be used is drawn into the bulb by first exhausting the air by compression, and with the end of the tube immersed in the fluid, the bulb is filled by suction. It can then be forced out with as little pressure and as slowly as desired.

DR. INGALS' INSTRUMENTS.**Fig. 2290.—INGALS' SEPTUM KNIFE.**

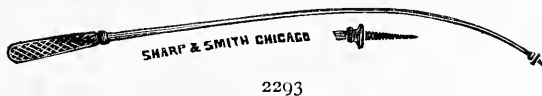
Blade one and one-quarter inches long, with sharp point. Used in operations upon the cartilaginous septum.

**Fig. 2291.—INGALS' APPLICATOR.**

These are made of copper, nickel plated, eight inches in length. They are quadrilateral in shape from the point five inches. They are flexible, and can be bent at any angle, for use in naso-pharynx, larynx, etc. When used in making applications in the larynx, it is best to tie the cotton swab securely with a piece of thread, winding it about the applicator, thus avoiding the risk of having the cotton drawn from the applicator, when grasped by the spasmodic action of the glottis.

**Fig. 2292.—INGALS' SILVER CANULA.**

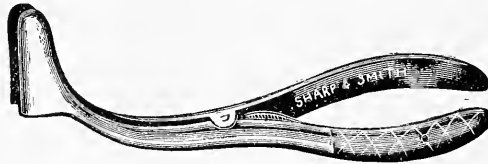
This canula is made for attachment to a common hypodermic syringe, and is used for making applications of solutions of cocaine in the nasal passages.

**Fig. 2293.—INGALS' THROAT BRUSH-HOLDER.**

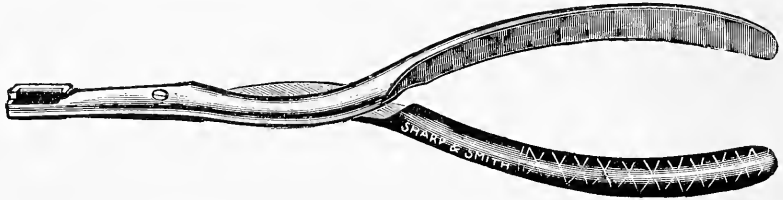
The quill is cut off an ordinary camel's hair brush at the base, and the holder is then screwed on. It can be bent at any desired angle, and is used to make applications of pigments to the throat or larynx.

DR. INGALS' INSTRUMENTS.**INGALS' FLAT NASAL PROBE.**

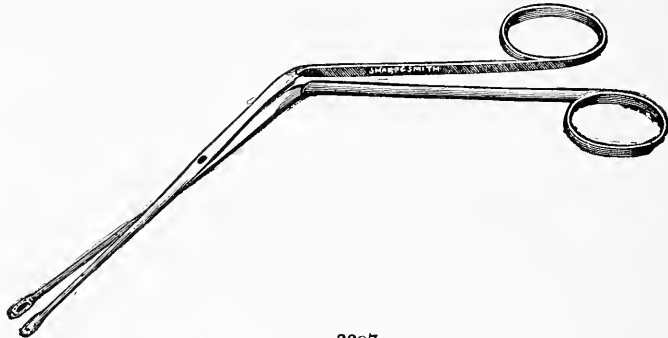
Five and one half inches in length, made of aluminium, bent at an angle of forty-five degrees in order that the hand may not be in the line of vision when using it in the nasal passages.

**INGALS' NASAL SPECULUM.**

Nickel plated. Adapted to the shape of the nasal opening. The jaws can be separated one inch. The Speculum is five inches in length.

**INGALS' NASAL BONE FORCEPS.**

These are made to remove projections from the Septum in operations for exostoses, and wherever bone forceps are necessary in operations within the nasal passages.

**INGALS' NASAL DRESSING FORCEPS.**

Bent, as per cut, at a proper angle, and a useful and necessary instrument in the laryngologist's armamentarium.

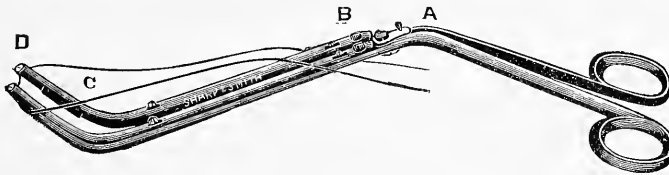
DR. INGALS' INSTRUMENTS.



2298

Fig. 2298.—INGALS' FOREIGN GROWTH CUTTING FORCEPS.

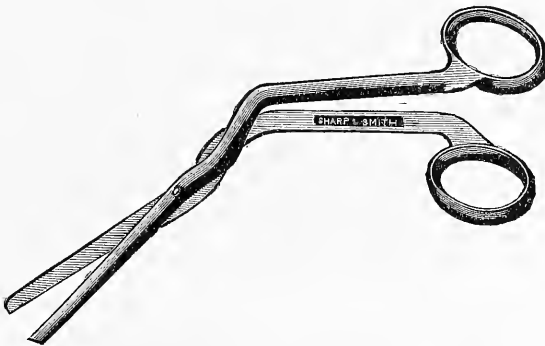
These were devised to remove granulations in the trachea after tracheotomy, but will also be found of service for certain cutting operations on the nose or throat.



2299

Fig. 2299.—INGALS' WIRE LOOP ADJUSTER FOR TUMORS IN NASOPHARYNX.

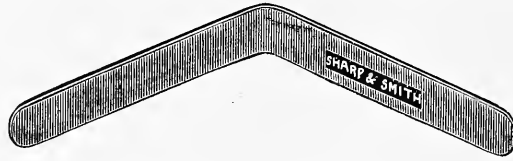
This loop adjuster was devised for carrying the wire behind and around tumors in the naso-pharynx, when operating for removal with the cold wire snare. It is so arranged that the wire can be disengaged in situ, and the instrument removed.



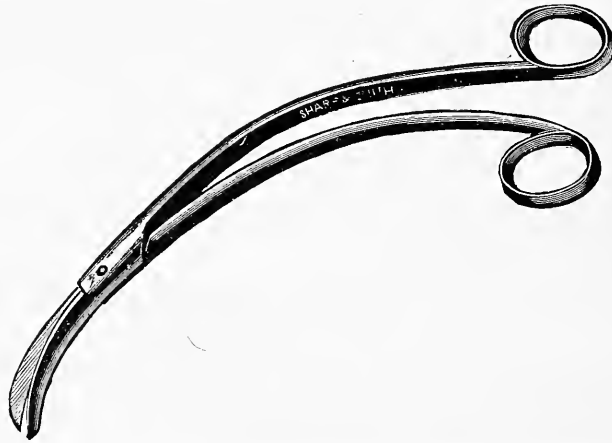
2300

Fig. 2300.—INGALS' NASAL SCISSORS.

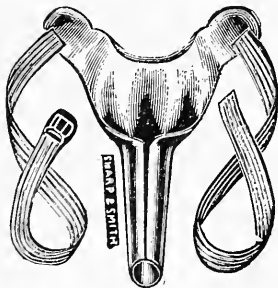
These scissors are useful in intra-nasal operations, made of suitable strength, and so constructed that the blades can be separated widely when operating in the nares.

DR. INGALS' INSTRUMENTS.**Fig. 2302. INGALS' NASAL SPATULA.—Set of Three.**

These are made of steel, and nickel plated. They are five and one-quarter inches long, are from one-half inch to one-quarter inch in width, and are bent at an angle of about 45° . They are very useful in pressing back swollen tissues in the nares to afford a better view of the nasal chamber; also in tamponing the nares, breaking down adhesions, etc., in some cases answering the purpose of a nasal speculum.

**Fig. 2301. INGALS' TURBINATED BONE SCISSORS.**

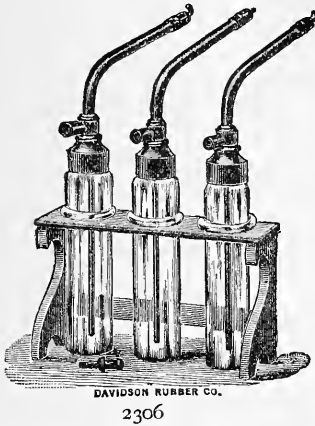
In some cases where it is necessary to remove tissues, or a part of the middle turbinated body, these scissors will be found to serve the purpose well.



2303

Fig. 2303. INGALS' NASAL SPOUT.

This is furnished with a rubber tube to convey fluids to a suitable jar. It is used in operations in the nares.

DR. INGALS' INSTRUMENTS.**Fig. 2306.—INGALS' NASAL SPRAYS.**

These sprays are put up in sets of three, and are made especially for office use. The bottles are of extra length, and the tubes are fitted to screw into a hard rubber cap attached to the bottle. They give a powerful spray with an air pressure of from ten to fifteen pounds, and throw fluid cosmoline, petrolina or aqueous solutions equally well. These atomizers are set in a neat rack, and each tube is furnished with a straight, curved, and Dr. Ingals' long tip for larynx and posterior nares.

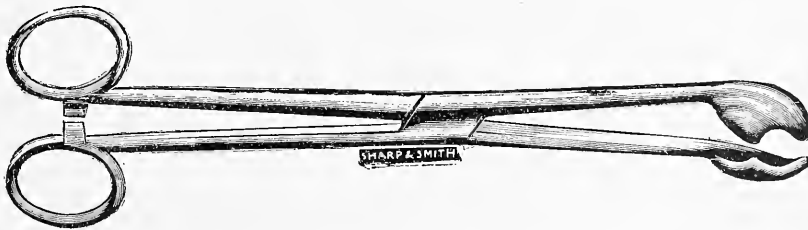
SHARP & SMITH have also an excellent cut-off to fit these tubes for use with compressed air apparatus

**Fig. 2307.—INGALS' NASAL SAW.**

This saw is used in operations upon the nasal septum for the removal of exostoses and corrections of deviations.

**Fig. 2308.—INGALS' NASAL TAMPON.**

Made of soft rubber, in a number of sizes. It is carried into the nares, collapsed, and is then inflated, causing pressure to prevent hemorrhage, and for other purposes.

**Fig. 2309.—INGALS' TONSIL FORCEPS.**

Used to grasp the tonsil in tonsillotomy with the Ingals' snare.

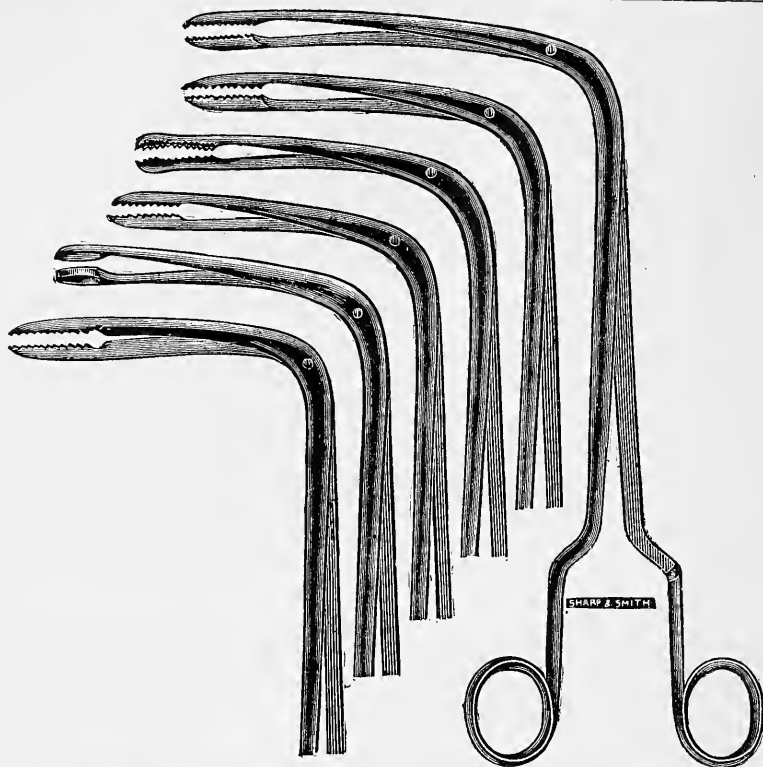
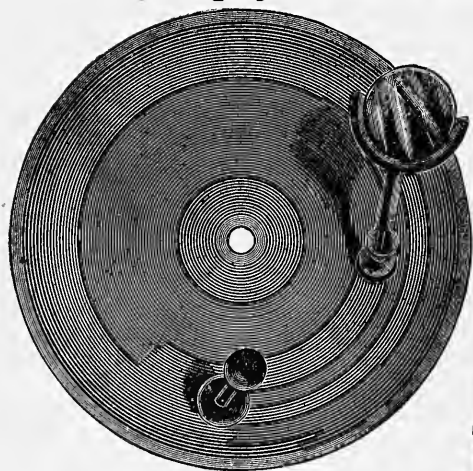
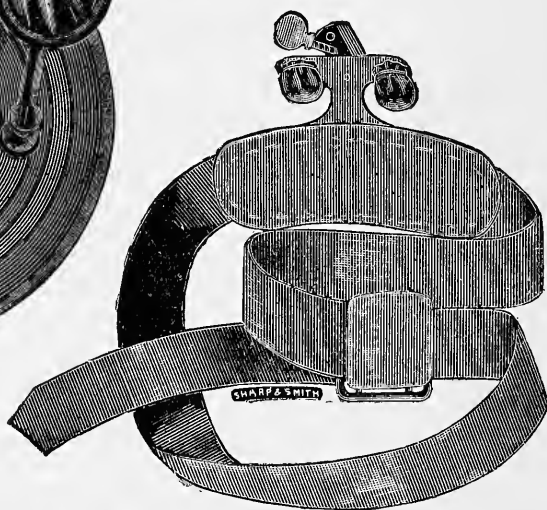


Fig. 2310.—INGALS' LARYNGEAL FORCEPS.



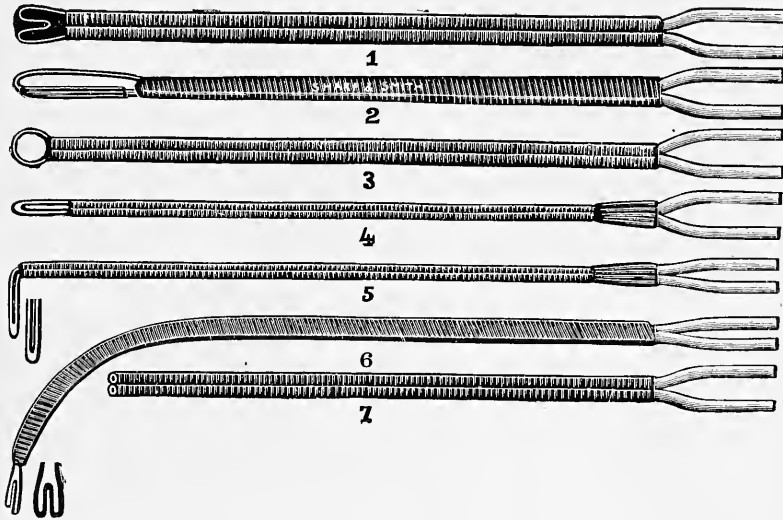
2305



2304

INGALS' HEAD BAND AND MIRROR.

DR INGALS' INSTRUMENTS.



2288

Fig. 2288.—INGALS' CAUTERY ELECTRODES.

Ingals' Cautery Electrodes, made of No. 14 copper tubing, neatly wound and shellacked.

No. 1. Five inches in length, with platinum wire, No. 22 tip, shield of non-combustible vulcanized fibre, used in making superficial cauterizations of the nasal mucous membrane.

No. 2. Five inches in length, blade $\frac{3}{4}$ inches long, of No. 20 platinum wire. Used principally in making linear cauterizations of the turbinated bodies and submucous thickenings at sides of vomer. The side opposite the cautery wire is carefully wound and shellacked.

No. 3. Five inches in length, with tip of No. 21 platinum wire. Useful in the cauterization of bases of polypi, after removal of the tumor, etc.

No. 4. Five inches in length, very flexible, with adjustable tip of No. 25 platinum wire.

No. 5. Five inches in length, tip of No. 22 platinum wire. Used in operations on pharynx, tonsils, etc.

No. 6. Six inches in length, adjustable tip of No. 22 platinum wire. Used in cauterizations of naso-pharynx, base of tongue, epiglottis, etc.

The tip is sometimes guarded with vulcanized fibre, the same as No. 1.

No. 7. Seven and one-quarter inches in length, with tip of No. 27 platinum wire, for use in laryngeal operations.

No. 8. Galvano-cautery Ecreseur, same as Fleming's.

DR. INGALS' INSTRUMENTS.

Fig. 2311. Dr. Ingals' Case of Laryngeal Instruments contains: 1 Plain Wire Nasal Speculum; 1 Ingals' 4-Inch Mirror and Head Band; 8 Metal Screw Top 2 dr. Vials; 1 Pair Ingals' Dressing Forceps; 4 Laryngeal Mirrors, in fixed handles; 1 Ingals' Powder Blower, with glass tubes; 1 Folding Tongue Depressor; 1 Flat Platina Applicator; 2 Cotton Carriers; Absorbent Cotton. In neat morocco covered, velvet lined case, opening in center, with handles for carrying.

This is a correct list as furnished by Dr. Ingals, through Dr. Rhodes.

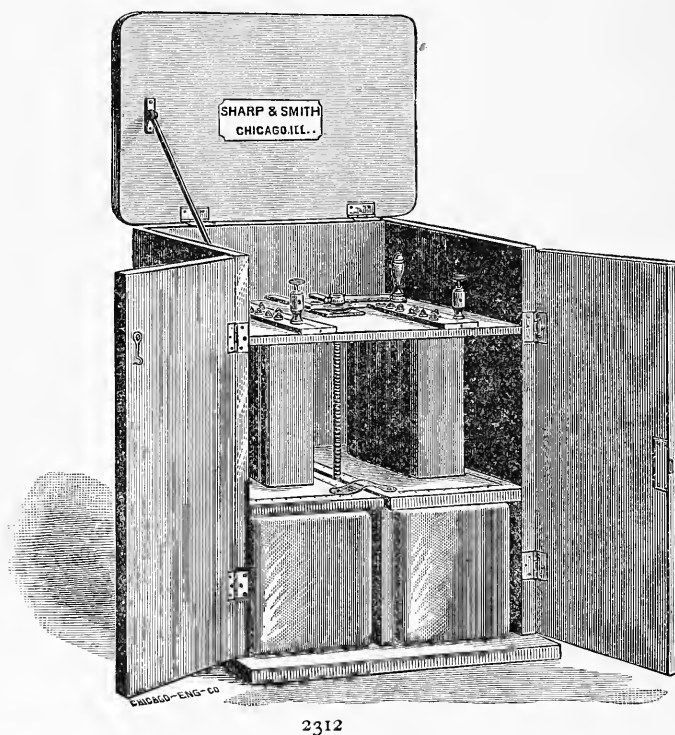
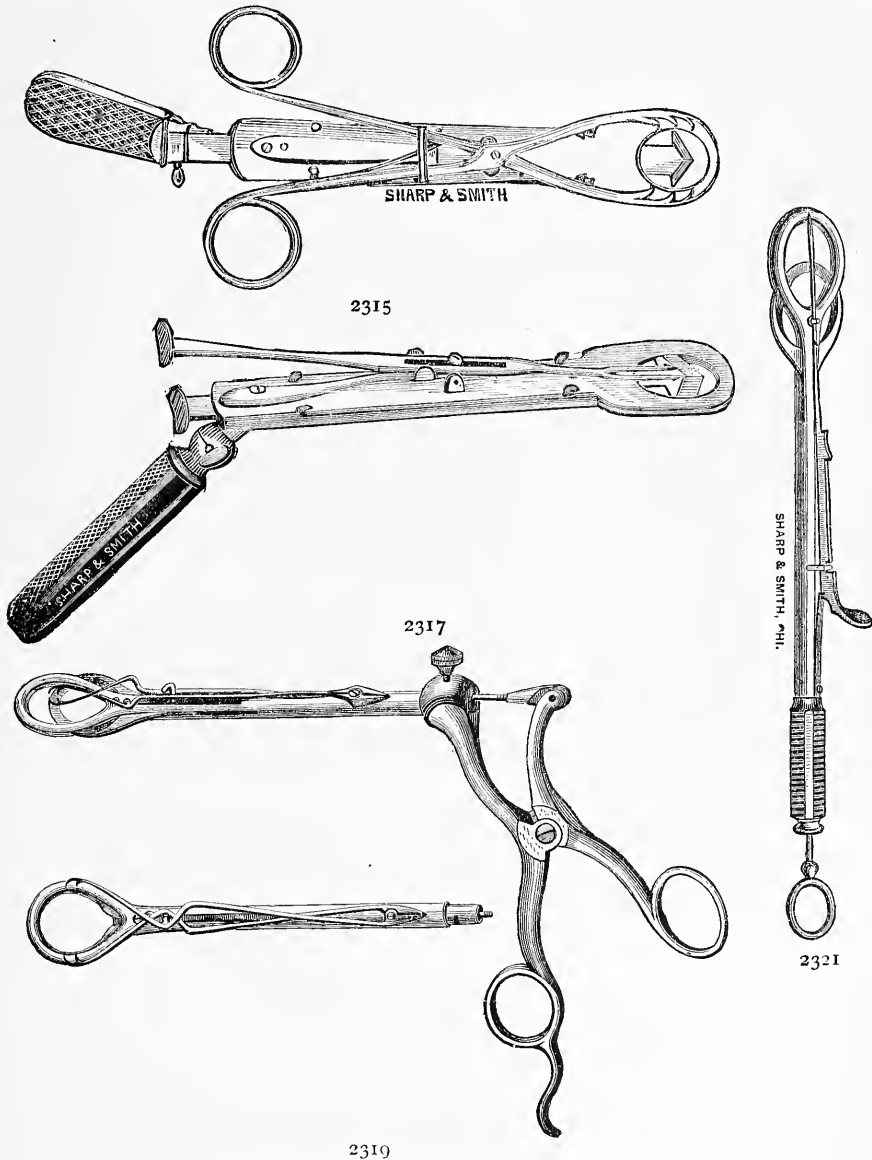


Fig. 2312.—DR. INGALS' CAUTION BATTERY.

This battery has been before the profession now for several years, and the recent improvements have made it the best and strongest caution battery in the market. There are two large cells, and the elements consist of large zinc and carbon plates, which are depressed by a screw to any desired depth, regulating the strength of the current perfectly. The cells hold a large amount of fluid which requires less frequent changing. The battery needs very little care. Some of them have been in constant use a number of years. The battery is inclosed in a neat black walnut case, 12x15x22 inches high.

MOUTH AND THROAT INSTRUMENTS.

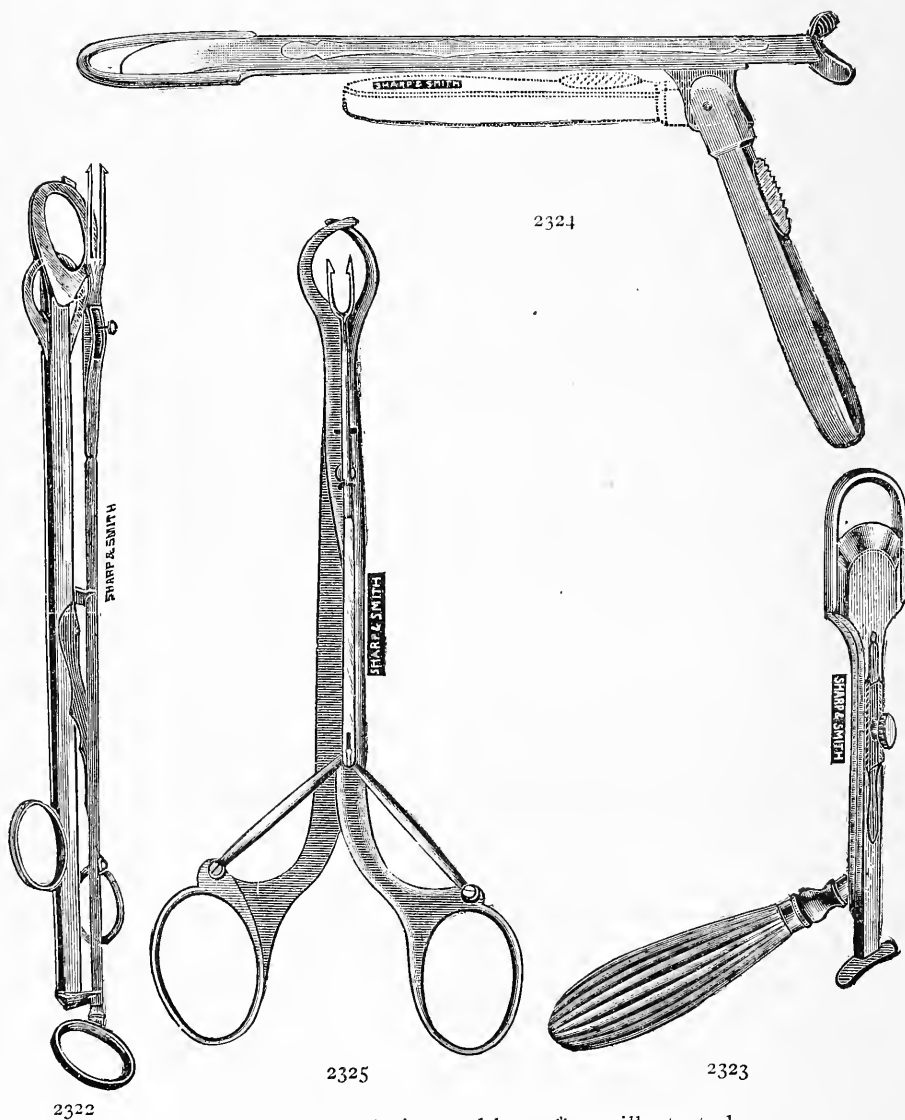
FIG.		
*2315	Hamilton's Tonsillotome.....	\$10 50
2316	Billings' ".....	9 00
*2317	Gunn's ".....	10 00
2318	Tiemann & Co.'s one Blade Tonsillotome.....	11 00
*2319	" " two " ".....	17 00
2320	Fahnstock's plain all Metal ".....	3 50
*2321	" Best Ebony Handle ".....	4 50



Instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

FIG.		
*2322	Mathieu's, three sizes, each.....	\$ 7 50
2322-A.	“ “ in case, each.....	9 00
*2323	Mackenzie's.....	6 75
*2324	Bishop's.....	7 50
*2325	Rupprecht's	10 00
2326	Sajon's.....	\$11 00 to 15 00
2327	Lentz's.....	5 00-
2328	Elsberg's.....	7 50



All instruments designated by a * are illustrated.

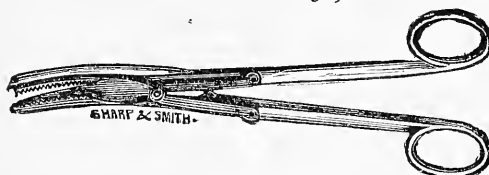
MOUTH AND THROAT INSTRUMENTS.

FIG.

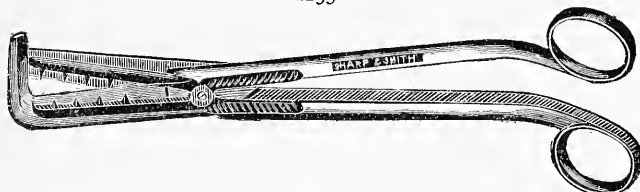
*2329	Sajou's Uvalotome.....	\$ 7 50
*2330	Tiemann & Co.'s Uvalotome.....	6 25
*2331	Wood's Uvula Scissors, with claws.....	4 00
*2332	Seiler's Angular Uvula Scissors with claws.....	3 75
*2333	Tonsil Scissors, Curved or Flat.....	2 00
2334	Hamilton's ".....	1 50
2335	Mathieu's ".....	1 50
2336	Tiemann & Co.'s Scissors.....	6 25
2337	Ericksen's ".....	3 75
2338	Richter's Angular ".....	3 00
2339	Whitehead's " for dividing Muscles.....	3 35
*2340	McKenzie's set of Scissors, Forceps and Ecraseur.....	18 75



2329



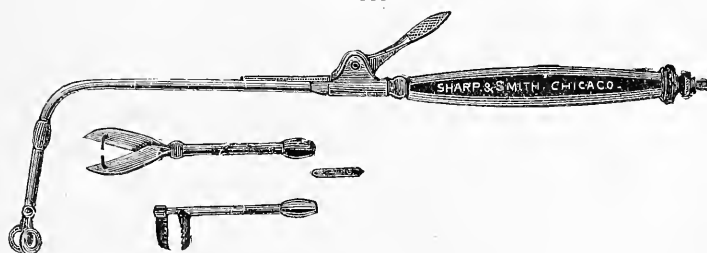
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2340



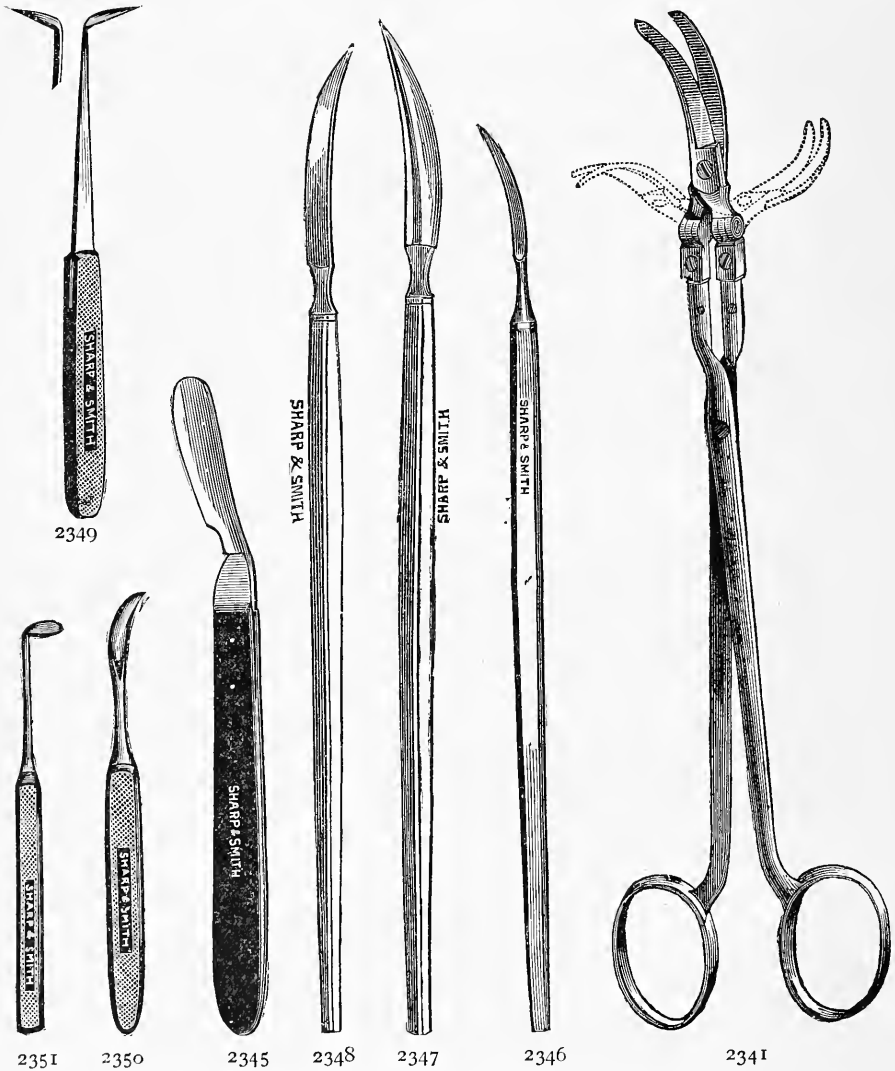
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All instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

FIG.

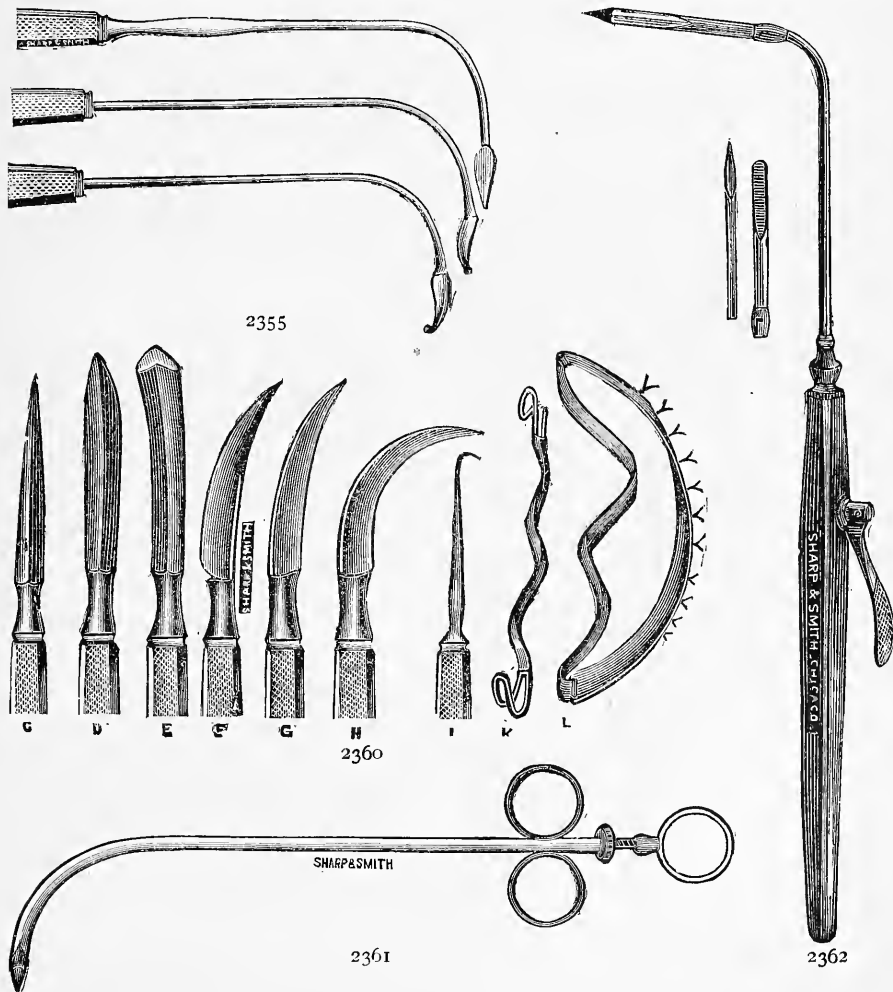
*2341	Heywood Smith's Scissors.....	\$ 9 00
2342	Concealed Scarifier.....	4 75
2343	Tonsil Scarifiers, 12 Patterns, each.....	\$1 10 to 2 00
2344	Green's Tonsil Bistoury.....	1 50
*2345	Yearsley's " Knife.....	1 65
*2346	Updegraff's Tonsil Bistoury.....	1 50
*2347	Double Edge Staphylarophy Bistoury.....	1 85
*2348	Curved R. & L. " " each.....	1 85
*2349	Whitehead's Paring Knife.....	1 15
*2350	" Gum ".....	1 20
*2351	" Hoe ".....	1 20



All instruments designated by a * are illustrated.

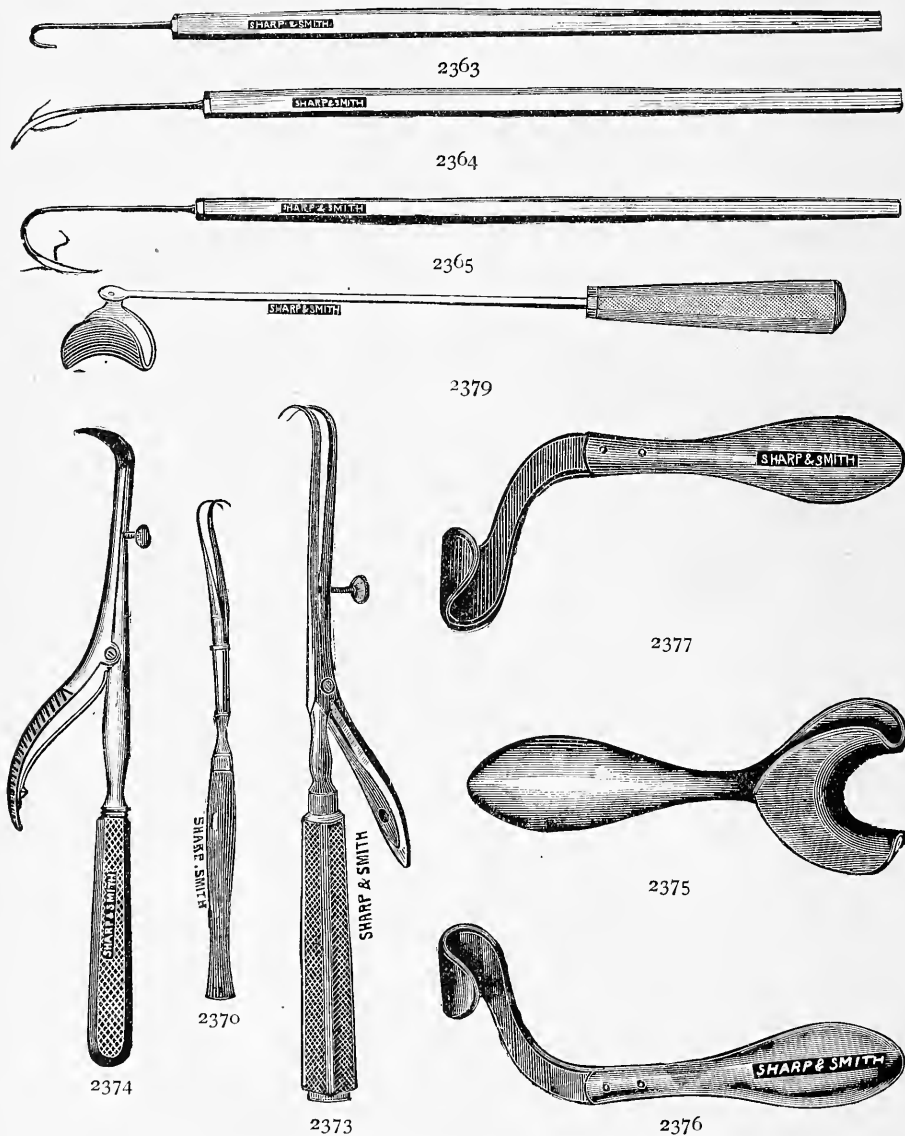
MOUTH AND THROAT INSTRUMENTS.

FIG.						
2352	Tobold's Polypus Forceps	Concaved	Cutting	Edge		\$ 1 15
2353	"	"	Convex	"		1 15
2354	"	Lanciform	Forceps			1 15
*2355	"	Laryngeal	Knives, any pattern, each			1 15
2356	Buck's	"	"			2 00
2357	Concave	"	"			1 50
2358	Convex	"	"			1 50
*2360-C	Langenbeck's	Narrow, Double	Edge	Staphyloraphy	Knife	1 85
*2360-D	"	Wide	"	"		1 85
*2360-E	"	"	"	"	Button	1 85
*2360-F	"	Single	Edge	Staphyloraphy	Knife	1 40
*2360-G	"	"	"	"		1 40
*2360-H	"	"	"	"		1 50
*2360-I	"	Staphyloraphy	Tenaculum			1 15
*2360-K	"	"	Retractor			1 85
*2360-L	"	"	Suture Holder			2 25
*2361	Tobold's Laryngeal Lancet (concealed)					3 00
*2362	McKenzie's 3 blade Laryngeal Lancet					11 00
	Buck's Tonsil Lancet					1 85



MOUTH AND THROAT INSTRUMENTS.

FIG.			FIG.		
*2363	Updegraff's Staphylarophy Hook.	\$1 50	2372	Plain Hard Rubber Palate Hook.	\$ 40
*2364	" " Needle	1 50	*2373	Langenbeck's Double Trachea	
*2365	" " Needle			Hook.....	2 25
	Bent	1 50	2374	Langenbeck's Tracheatome	3 20
2366	Updegraff's Staphylarophy Case.	6 75	*2375	Luer's Cheek Retr'ctor, either side	1 60
*2367	Whitehead's Spiral Needle	1 30	*2376	" " " right side	1 20
2368	Silver Wire Needle.....each	10	*2377	" " " left side	1 20
2369	Green's Tonsil Hook	1 50	2378	Dieffenbach's Cheek Retractor,	
*2370	Green's Double Tonsil Hook....	2 00	*2379	S. & S. Cheek Retractor.....	2 25
2371	Leffert's Palate Hook.....	1 50			



All Instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

FIG.			FIG.		
*2380	Otis' Trachea Dilator.....	\$2 65	2384	Wells' Trachea Dilator.....	\$1 60
2381	Elastic Trachea Dilator.....	60	*2385	Delaborde's Trachea Dilator.....	3 75
*2382	Minor's Trachea Dilator.....	3 50	*2386	Trosseau's Trachea Dilator.....	1 85
*2383	Ellsberg's Trachea Dilator.....	1 85	*2387	Rumboldt's Uvula Retractor....	1 10

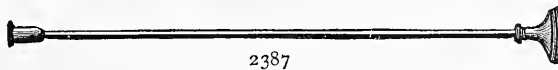
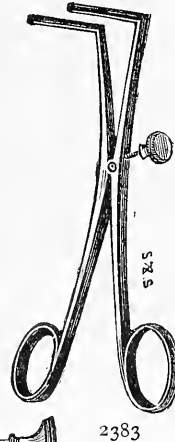
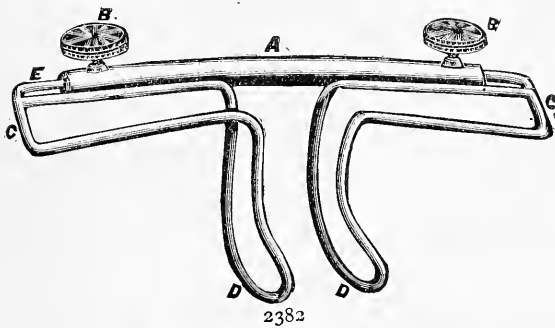
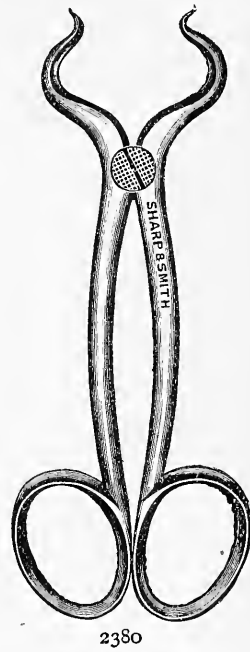
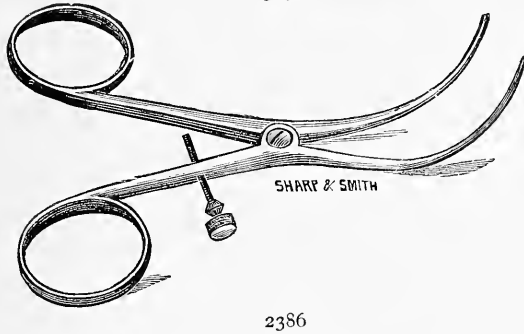
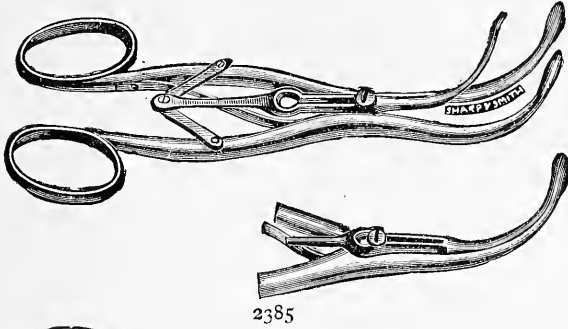


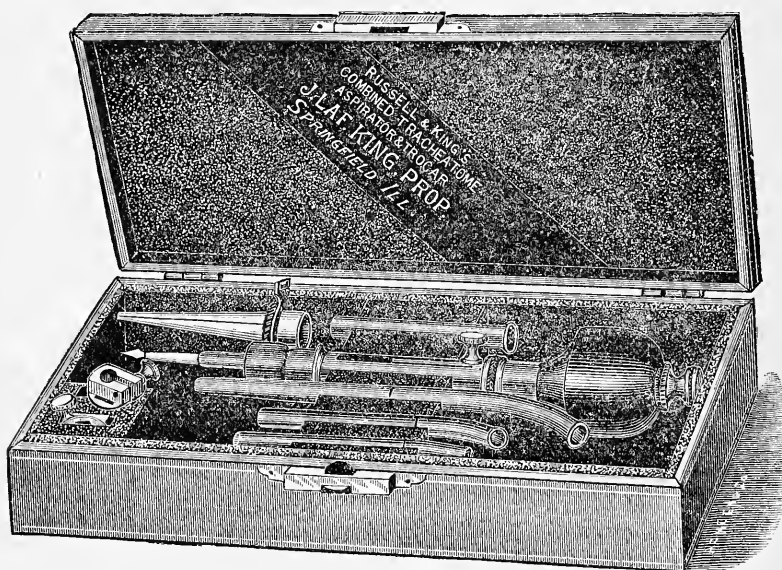
Fig. 2387. Uvula Retractor. The body of the instrument is a slender tube, about six inches long. Its larger extremity is trumpet shaped, and is covered with thin sheet rubber; its smaller extremity is so made, that the uvula may be drawn into it.

Instruments designated by a * are illustrated.

Other Trachea Instruments, see Supplement at end of book.

MOUTH AND THROAT INSTRUMENTS.

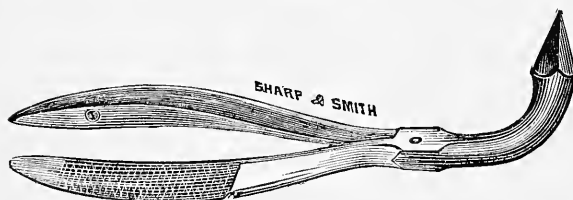
FIG.			
2388	Hanks' Tracheotome	\$ 6	75
*2389	Russell & King's Tracheotome.....	25	00
2389-A	" " " Hospital Style	27	50
*2390	Pitha's "	2	75
*2391	Tiemann & Co.'s " and Dilator	6	25
*2392	Trachea Scalpel.....	1	10
*2393	Pilcher's Trachea Retractor.....	1	50



2389



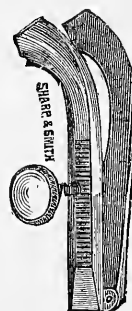
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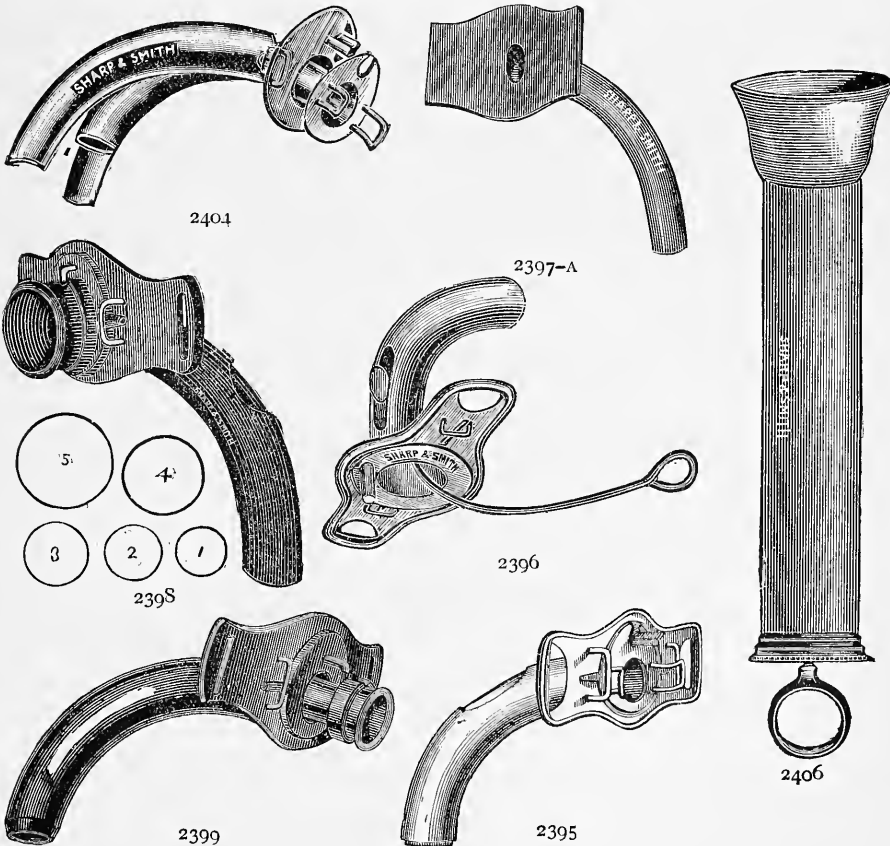
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Instruments designated by a * are illustrated.

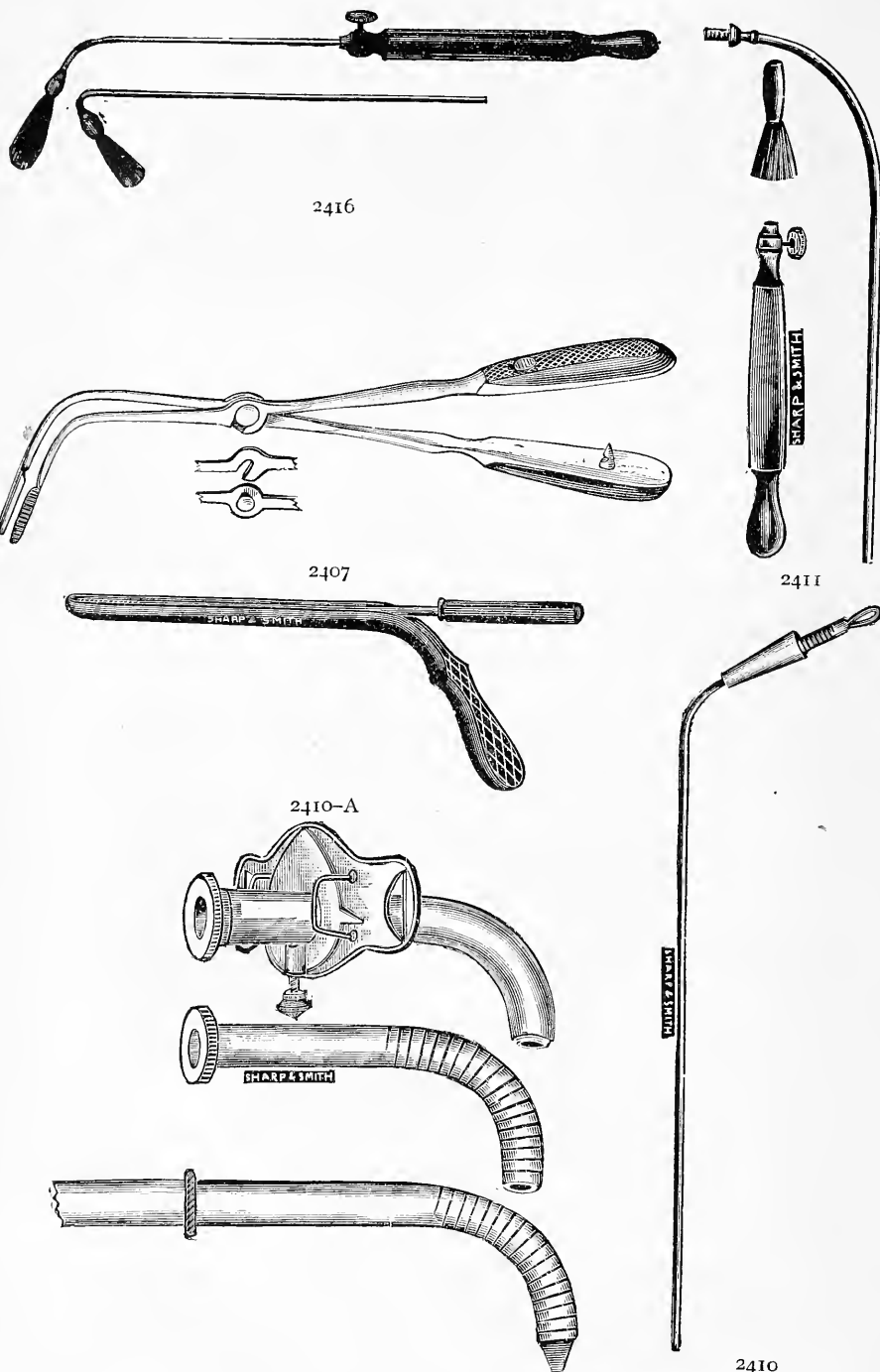
Other Trachea Instruments, see Supplement end of book.

MOUTH AND THROAT INSTRUMENTS.

FIG.		(Trachea).	
2394	Single Silver Trachea Tube.....		\$ 2 50
*2395	Double " " " ".....		4 50
*2396	" " " " with flexible Mirror.....		3 75
2397	" Aluminium Trachea Tube.....		3 75
*2397-A	" Soft Rubber " ".....		1 50
*2398	" Hard " " ".....		1 50
*2399	" " " " ".....		1 50
2400	" Silver Plated " ".....		2 50
2401	Trivalve Silver " ".....		7 50
2402	Durham's Set of " ".....	\$11 co to	15 00
*2403	Johnson's Double " " and Obdurator.....		7 50
*2404	Gendron's " Split Silver Trachea Tube.....		6 00
2405	T. & Co.'s Vertebrated " ".....		4 50
*2406	" Tracheal Aspirator.....		1 85
*2407	Ellsberg's Cotton Applicator.....		4 50
2408	McCoy's " ".....		5 co
2409	Goodwillie's " ".....		1 00
*2410	Dunn's Laryngeal Cotton Applicator, Silver.....		2 00
*2410-A	Stucky's Modification of Smith's Acid Applicator.....		2 25
*2411	Flexible Stem Brush Holder, 12 Brushes.....		1 50
2412	Plain " ".....		50
2413	California " ".....		1 50
2414	Child's Brush and Caustic Holder.....		1 85
2415	Teeger's " Holder.....		1 65
*2416	Wagner's Brush Holder with two stems and 12 brushes.....		2 25
2417	McKenzie's Brush Holder with one brush.....		1 00



MOUTH AND THROAT INSTRUMENTS.



2410
For description see next page.

MOUTH AND THROAT INSTRUMENTS.

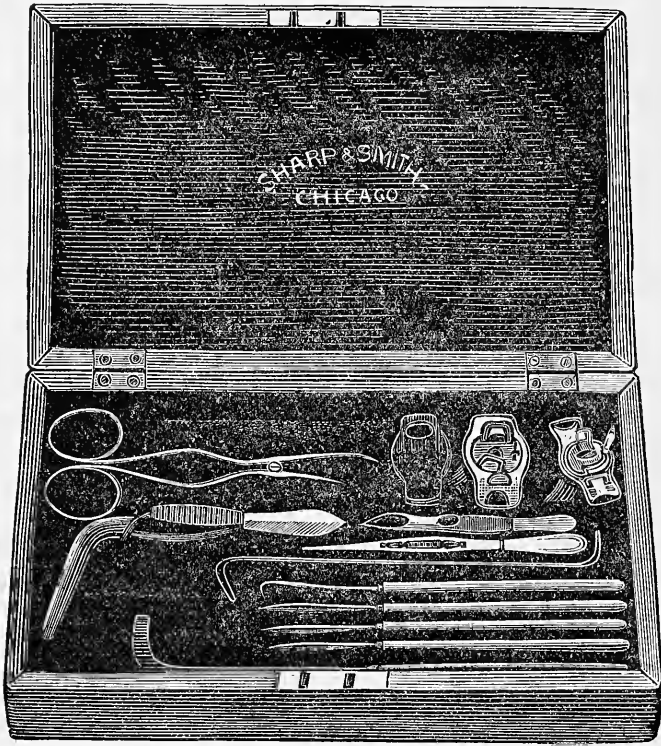


Fig. 1426-A. Tracheotomy Case.

We can put up Tracheotomy Cases at all Prices,
from \$15 to \$50.

PLEASE DO NOT CUT OR MUTILATE THIS BOOK.

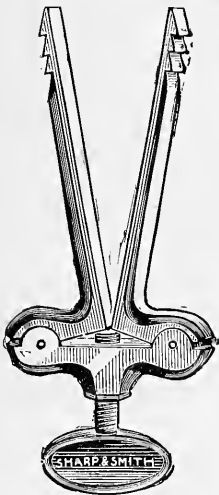
Instruments Ordered by Number of Figure and of
Page, will Receive Prompt Attention.

MOUTH AND THROAT INSTRUMENTS.

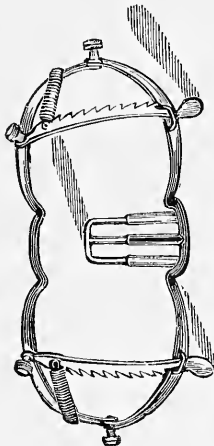
FIG.

2427	Buck's Trachea Guide.....	\$ 1 50
*2428	Heister's Speculum Oris.....	4 50
*2429	Goodwillie's " ".....	6 00
2430	Westmoreland's Speculum Oris.....	4 50
2431	Ehrhart's " ".....	3 75
*2432	Gross' " ".....	4 00
*2433	Roser's " ".....	3 75
*2434	Sharp & Smith's Mouth Specula, each.....	1 00
2434-A	" " " set of three.....	3 00
2434-B	" " " four.....	3 75
*2435	Hard Rubber Oral Screw.....	75
2435-A	Whitehead's Mouth Gag.....	9 00

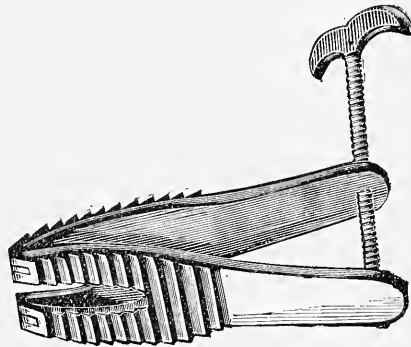
For other mouth gags see page 516.



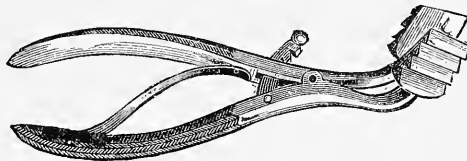
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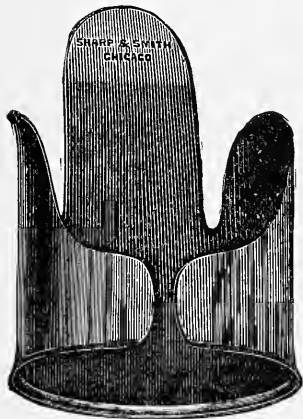
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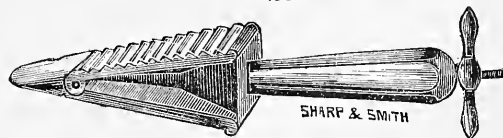
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2434



2435



2429

All instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

FIG.			
2436	Plain Cylindrical Œsophageal Bougies.....	\$1 00	
2437	Olive tip " "	1 25	
*2438	Sets of Six (6) " "	3 00	
*2439	Dr. I. L. Crawcour's " "	1 85	

A Dilator for Stricture of the Œsophagus.

By I. L. CRAWCOUR, M. D., M. R. C. S., England.

FORMERLY PROFESSOR OF MEDICINE, NEW ORLEANS SCHOOL OF MEDICINE.

Some time ago I was called to a case of stricture of the œsophagus. A child eight years of age, had accidentally swallowed some condensed lye. Four months had elapsed since the accident, and nothing had been done. When I saw the child, it had not been able to swallow anything for three days. The smallest œsophageal sound would not pass, a small gum catheter or bougie bent against the obstruction, and one with the stylet would not take the proper curve. In this dilemma I bethought me of Otis' flexible urethral probe; this, the smallest (a No. 8 French scale) passed, but with great difficulty; after some



2439

few days I passed Emmet's uterine probe, which is somewhat larger, and in this way was enabled gradually to dilate the stricture. The child meanwhile was fed by enemata. The stricture was gradually dilated by means of ivory bulbs attached to a flat metallic wire. It struck me that a series of flexible bougies, made on the spiral wire system, would be useful, not only in such cases, but also as urethral dilators.

They are fifteen inches long, and as will be seen by the cut, have a broad, flat handle. They terminate in an acorn-shaped bulb, and are as follows:

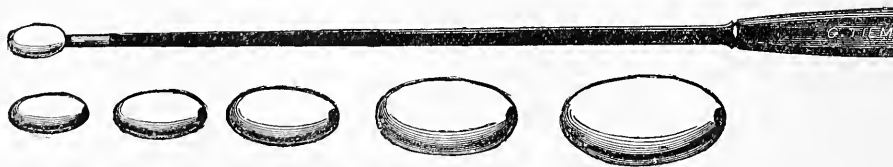
No. 1. Bulb No. 15, French gauge, attached to a short and narrow neck, rapidly increasing to No. 17.

No. 2. Bulb 17, shank 19.

No. 3. Bulb 19, shank 21.

No. 4. Bulb 21, shank 24.

These are the sizes which I think will be found in practice the most useful, and they are perfectly flexible.

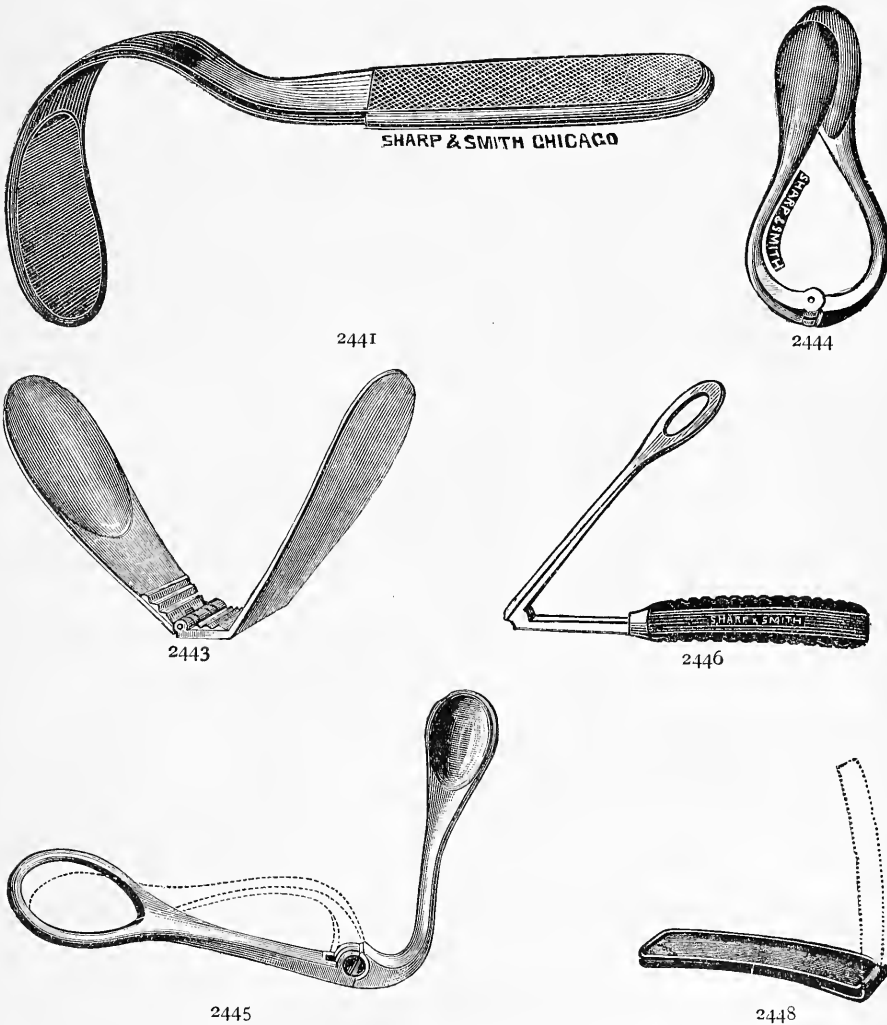


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MOUTH AND THROAT INSTRUMENTS.

TONGUE DEPRESSORS.

FIG.						
2440	Hard Rubber	Tongue Depressors.....				\$ 1 00
*2441	"	"	"	Long.....		1 00
2442	"	"	Folding Tongue Depressors.....			1 00
*2443	"	"	"	"	Metal Hinge.....	1 50
*2444	Goodwillie's	"	"	"	"	1 00
*2445	"	Fenestrated Folding Tongue Depressors.....				1 50
*2446	Green's	Folding Tongue Depressors.....				1 00
2447	Wire	"	"	"		50
*2448	Half Wire	"	"	"		50
2449	Roosa's	"	"	"		1 50
2450	Steel	"	"	"		1 10

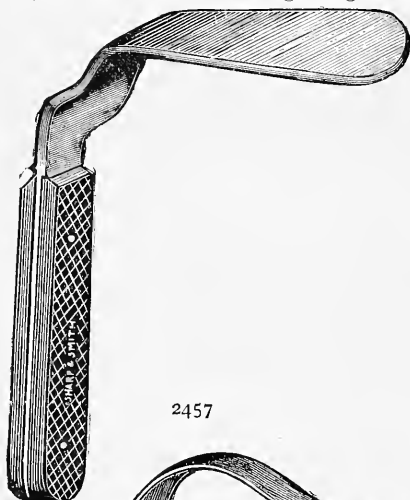


All Instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

TONGUE DEPRESSORS.

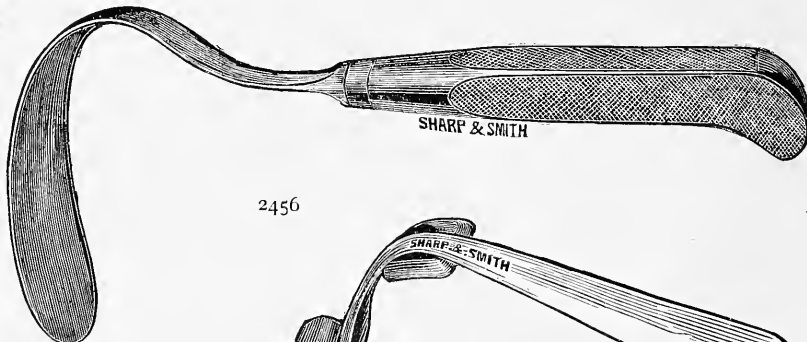
FIG.			
*2451	Sharp & Smith's Folding Tongue Depressor.....	\$	75
2452	" Coin Silver Folding Tongue Depressor.....		3 00
2453	Cohen's Folding Tongue Depressor		1 50
*2454	" Steel Tongue Depressor.....		1 25
2455	Parker's		95
*2456	Sass' " " " Ebony Handle.....		2 25
*2457	Tobold's " " "		1 00
*2458	Church's Self Holding Tongue Depressor.....		5 00



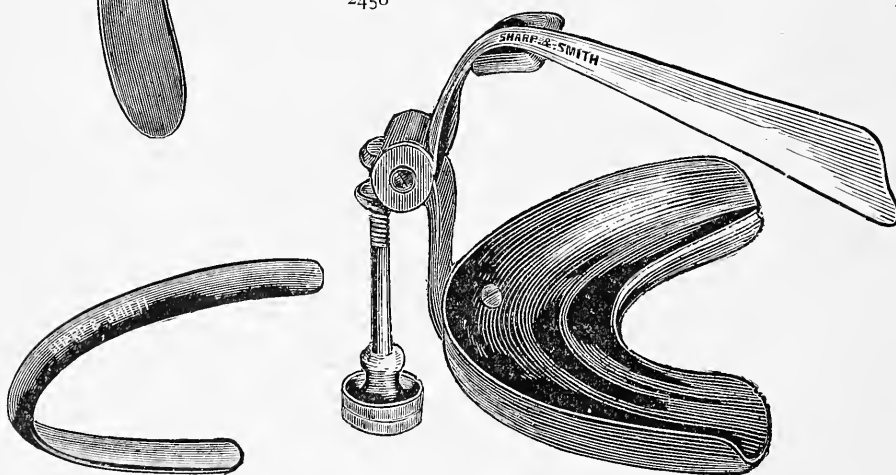
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2451



2456



2454

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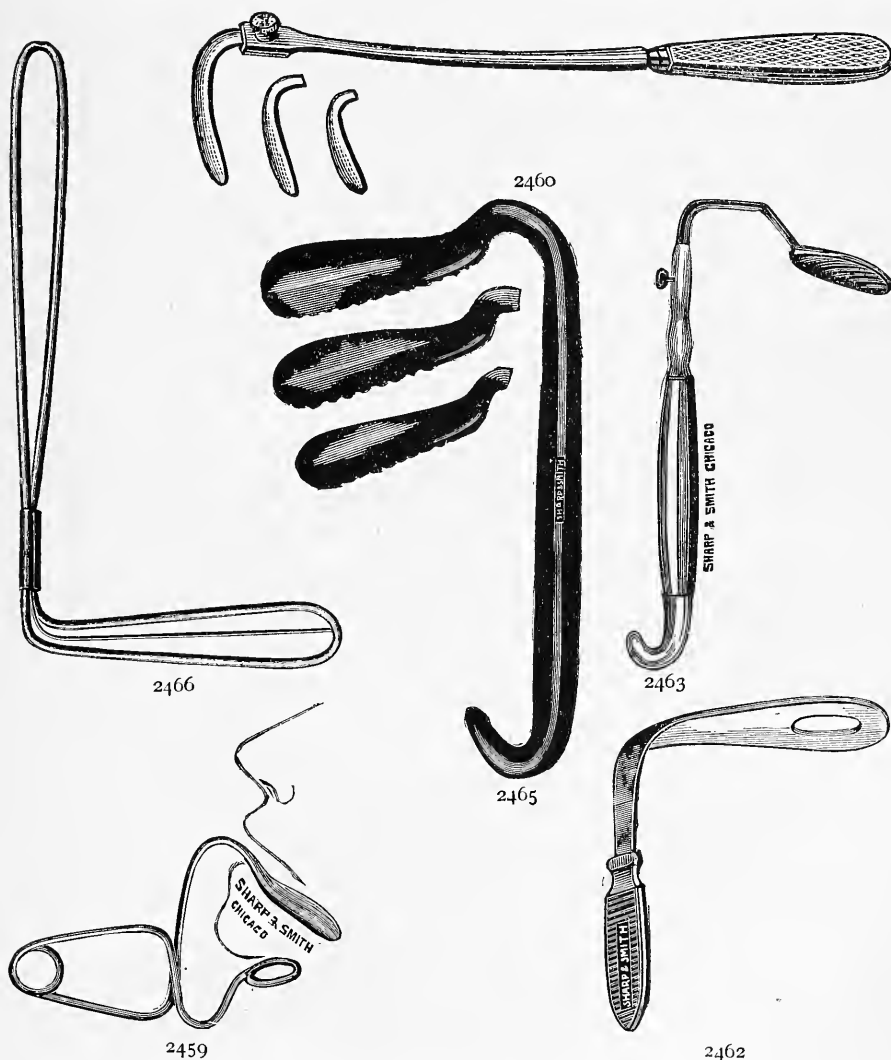
All Instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

TONGUE DEPRESSORS.

FIG.

*2459	Stehmen's Self-holding Tongue Depressor.....	\$ 1 50
*2460	Rumbold's Tongue Depressor Set.....	4 50
2461	Ellsberg's ".....	2 00
*2462	Bosworth's Steel Tongue Depressor.....	75
*2463	Tuerk's set of 3, " ".....	3 35
2464	" H. R. Cov'd " " set of 3.....	5 00
*2465	" Single " ".....	1 75
*2466	Devilbiss' set of 3 " ".....	3 50



All instruments designated by a * are illustrated.

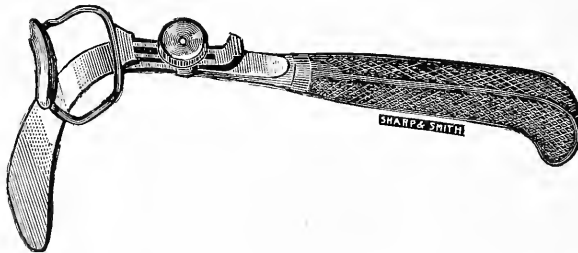
MOUTH AND THROAT INSTRUMENTS.

Fig. *2467 Dr. J. J. Higgins' Self-retaining Tongue Depressor\$ 4 50

A SELF-RETAINING TONGUE DEPRESSOR.

BY J. J. HIGGINS, A. M., M. D.

Dr. Higgins says, among other things: In examinations of the fauces, and especially in operations thereon, the need of a self-retaining tongue depressor and speculum oris is sadly felt. For all the minor operations—such as penciling, application of remedial agents in divers ways, excision of the uvula, etc.—the convenience (in some cases the necessity) of having the use of both hands is without question. So strongly have I felt the want of a suitable instrument for such purposes in my own practice that I have been compelled (the armamentarium of our instrument makers not having one at all adapted to the regular and daily use of the practitioner) to invent and have one made for my own use and feel constrained to make it more generally known through the columns of



2467

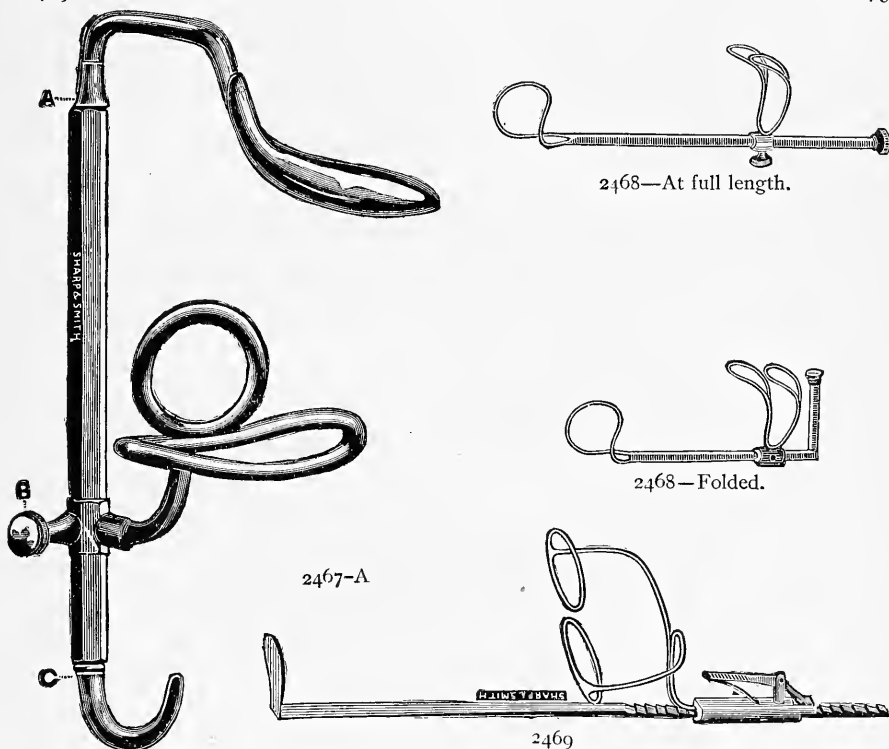
your valuable paper. Mechanical description would be tedious, and is unnecessary, as the cut illustrating the instrument is a perfect representation, and tells the story at a glance. It is adjustable for any size of mouth, or opening thereof—with not even discomfort, much less pain—can be handled and place *in situ* as readily as the usual tongue depressor, and is self-retaining. It is manufactured of the best quality of steel—handsomely nickel-plated—handle and other attachments of vulcanite, baked on and highly polished, and thoroughly aseptic in construction.

Moreover, its construction is such that, by the simple turn of a milled screw, an ordinary tongue depressor of a special and improved pattern and shape is at one's service.

For the photographing of the posterior fauces or buccal cavity it is exceedingly serviceable, the sides or walls not being occluded by the instrument as is the case with vaginal or other specula, but they are seen in their entirety.

MOUTH AND THROAT INSTRUMENTS.

FIG.		
*2467-A	White's Tongue Depressor.....	\$ 2 00
*2468	White's Palate Retractor and Post Nasal Speculum.....	1 50
*2468	“ “ “ “ “ “	1 50
*2469	Porcher's “ “	2 75



2469. A new Self-Retaining Uvula and Palate Retractor, by W. Peyre Porcher, M. D., Charleston, S. C., and of it he says: This instrument as will appear from the cut, is an ordinary palate-hook, upon the stem of which a slide-attachment has been added. From the front of this slide project two arms, which end in two medium-sized rings, and at its rear is an automatic spring-catch which penetrates the perforated stem at short intervals. When in position the two rings on the arms rest on either side of the nose, just above the alveolar processes, and are easily retained there by the counter-pressure of the retracted palate. It is light in construction, weighing but four hundred and forty-five grains, easily adjusted, and releases both hands for operation and the management of the mirror. It has been highly commended by distinguished laryngologists, as well as by general practitioners.

The following letter was received from Dr. J. Solis Cohen, to whom I submitted a model of the instrument, and he has kindly consented to its publication:

1421 WALL STREET, PHILADELPHIA, September 28, 1887.

MY DEAR DOCTOR:—To-day is the first opportunity I have had to give the instrument you forwarded to me a trial. I was very successful in using it and without cocaine. I like it very much indeed, and I think it the simplest mechanism I have seen. Yours very truly,

J. SOLIS COHEN.

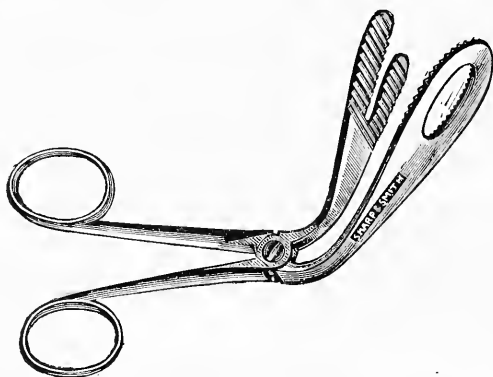
MOUTH AND THROAT INSTRUMENTS.

FIG.

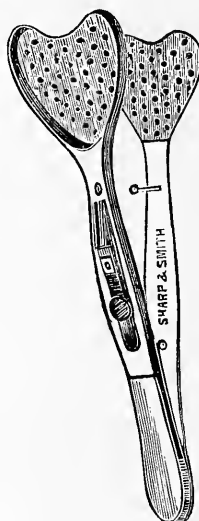
*2470	Goodwillie's Oral Saws.....	\$ 2 60
*2471	Dobell's Tongue Holding Forceps.....	4 50
*2472	Cuscoe's " " ".....	3 30
*2473	Simrock's Rhinoscope.....	6 00
*2474	Duplay's ".....	6 50



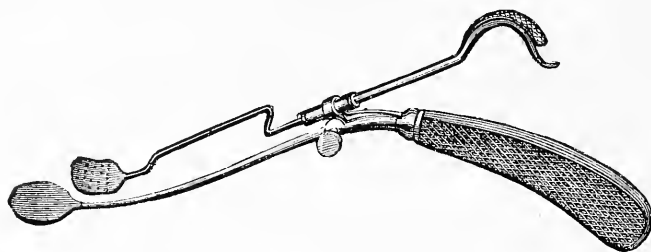
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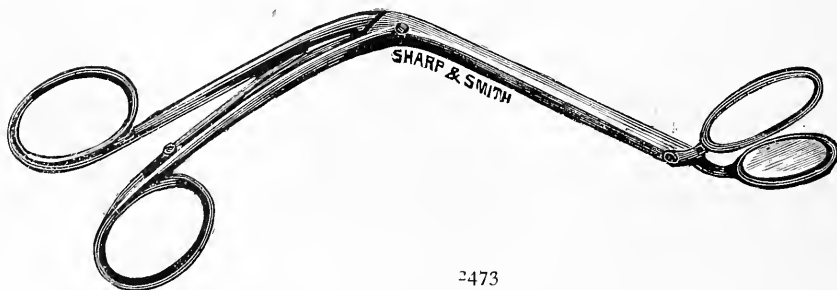
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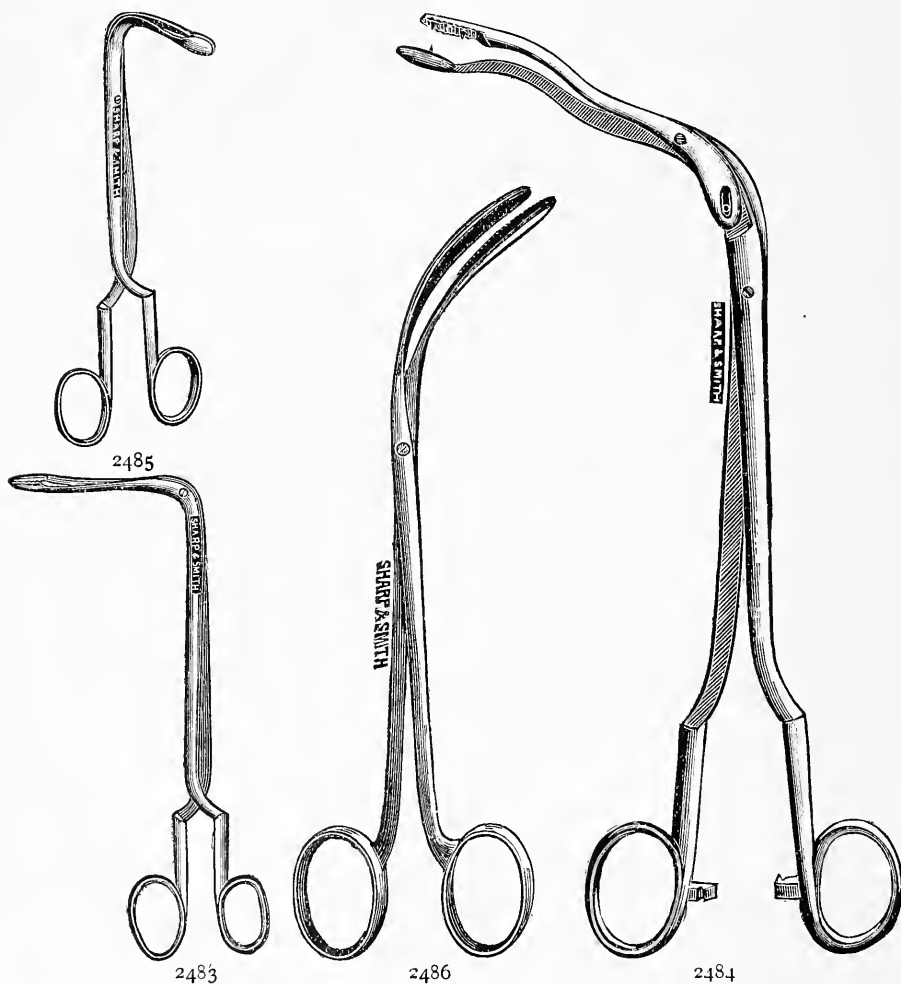


2473

All instruments designated by a * are illustrated.

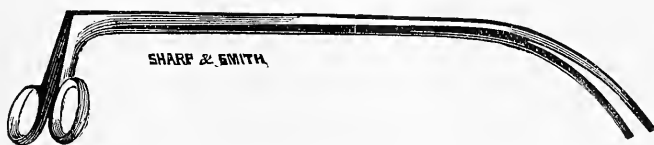
MOUTH AND THROAT INSTRUMENTS.

FIG.		
2481	Schroeter's Throat Forceps and Lancet.....	\$11 25
2482	Cohen's Cotton Holding Forceps.....	2 50
*2483	" Throat Forceps, Large.....	2 50
*2484	Cuscoe's ".....	4 50
*2485	Cohen's Post Nasal Forceps.....	2 50
*2486	Buck's Throat Forceps.....	2 25
2487	Knight's ".....	3 00
2488	Bond's ".....	2 25
2489	Ellsberg's ".....	3 25
2490	United States Throat Forceps.....	2 25
*2491	Burgess' ".....	3 20
2492	Brun's ".....	3 35
*2493	Alligator ".....	4 50
2494	Esophagus ".....	1 85
*2495	Flexible ".....	3 75
2496	Tascher's ".....	2 50
2497	Rumbold's " set of 4.....	18 75

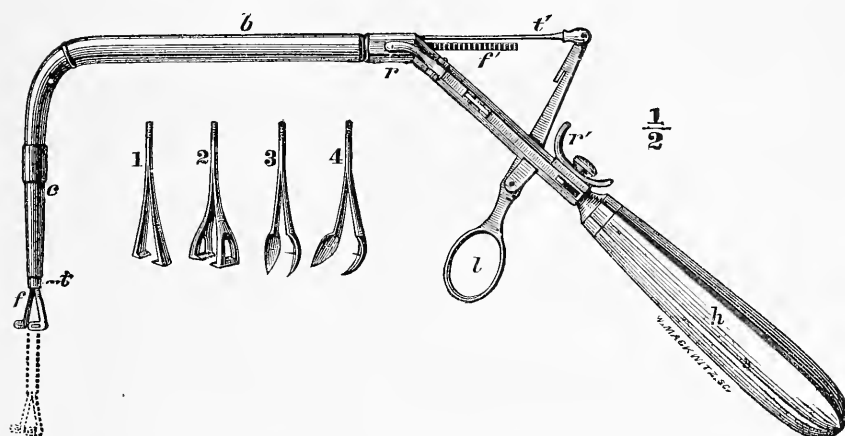


All Instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.



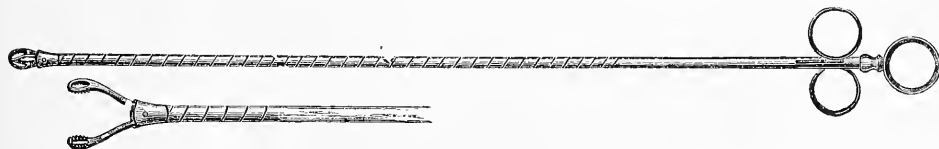
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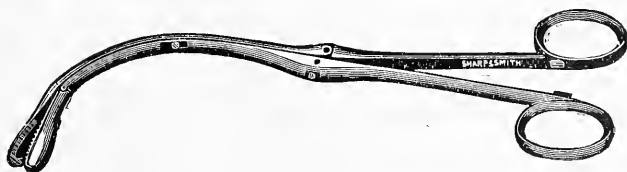
2497

Figure 2497. Tubular Laryngeal Forceps. Traction on the lever l pushes the two rods t' and f' into the tube b , and causes the forceps to descend to the required distance as marked by the dotted lines; then pressure on r' which is connected with the clutches r , will arrest the serrated rod f' and prevent the forceps f from descending farther into the larynx. If the rod t' is still pushed by the lever l into the tube b , the tube at f will close the forceps on the object in the larynx.

1, 2, 3 and 4 represent different shaped forceps that may be attached to the instrument.



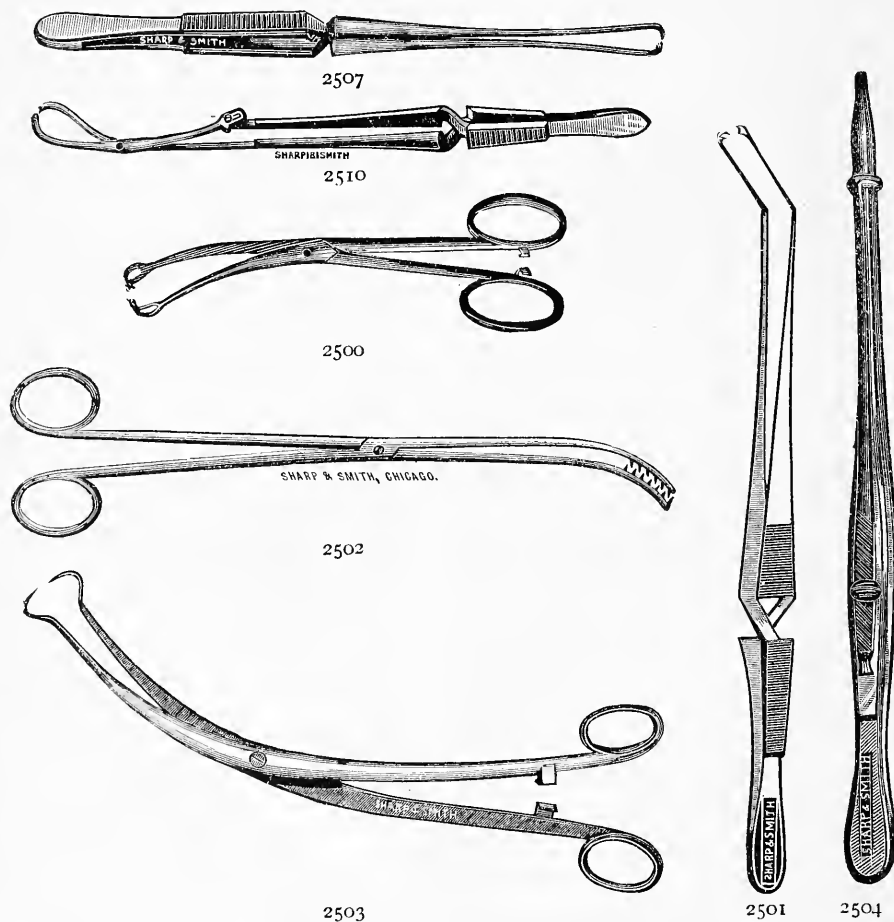
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2493

MOUTH AND THROAT INSTRUMENTS.

FIG.			
2498	Braun's Epiglottis Forceps.....	\$	3 25
2499	Self-grasping Vulsellum Forceps.....		2 25
*2500	French " "		2 25
*2501	Byrne's " "		2 25
*2502	Musseau's " "		2 25
*2503	Skene's " "		2 25
*2504	Nott's Wire Twisting " "		3 00
2505	Emmet's " " "		2 25
2506	Sims' " " "		3 00
*2507	Langenbeck's Seizing " "		2 25
2508	Nott's " " "		2 25
2509	Durham's " " "		3 35
*2510	Whitehead's " " "		3 35
2511	Ellsberg's Sponge-holding " "		3 25



Instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

FIG.		
2512	Hanks' Double Tenaculum Forceps.....	\$ 2 25
2513	Ball's " " " ".....	1 85
*2514	Tiemann's Canula Forceps for removing foreign bodies from Tracheotomy Tubes, while in situ.....	3 50
2515	Trosseau's Forceps for removing foreign bodies from Tracheotomy Tubes while in situ.....	2 50
2516	Meunier's Forceps for removing foreign bodies from Tracheotomy Tubes, while in situ.....	2 25
2517	Collins' Forceps for removing foreign bodies from Tracheotomy Tubes, while in situ.....	3 50
*2518	Bristle Probangs for removing foreign bodies, best.....	1 25
*2518-A	" " " " " common.....	1 00
2519	Whalebone Probangs, set of six.....	3 00
2520	" " " " " with Ivory tips.....	4 50
2521	Silver Bucket " in three parts.....	2 65
2522	Richardson's ".....	2 65
2523	Graefe's Articulated Probangs.....	1 50
2524	Sponge and Whalebone ".....	20
2525	" " " per doz.....	1 25
2526	Schaefer's Throat Scoop.....	6 25
2527	Stoerck's Drop Tube.....	1 85
*2528	Bosworth's Curette for use in glandular hypertrophy at the vault of the pharynx.....	1 30
2528-A	Concealed Caustic carrier.....	1 50
2528-B	Jointed " ".....	1 50
2528-C	Long Silver ".....	1 15
2528-D	Lente's Caustic Probe.....	1 30

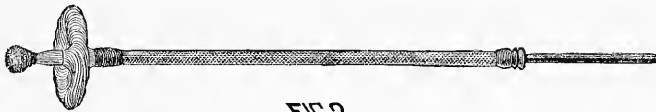
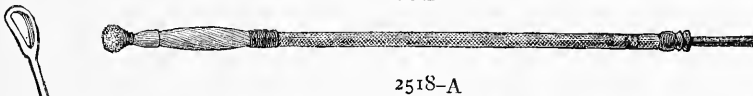


FIG. 2.



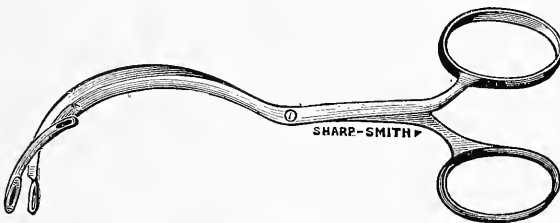
2518-A



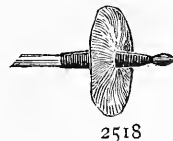
2528



SHARP & SMITH



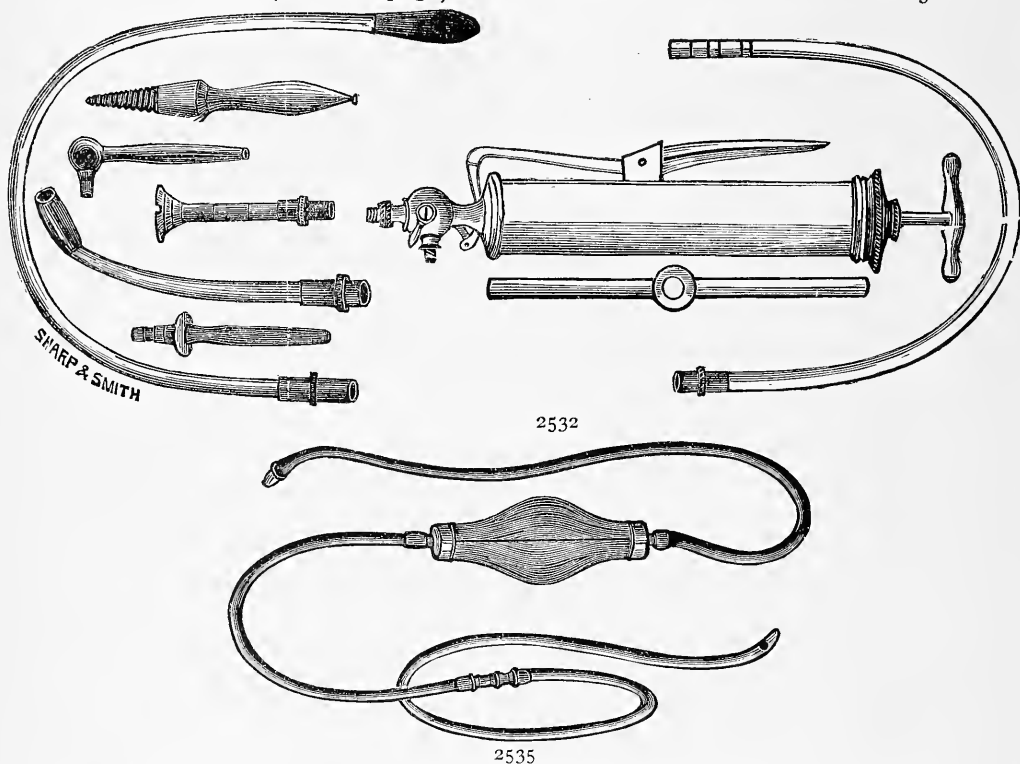
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2518

MOUTH AND THROAT INSTRUMENTS.

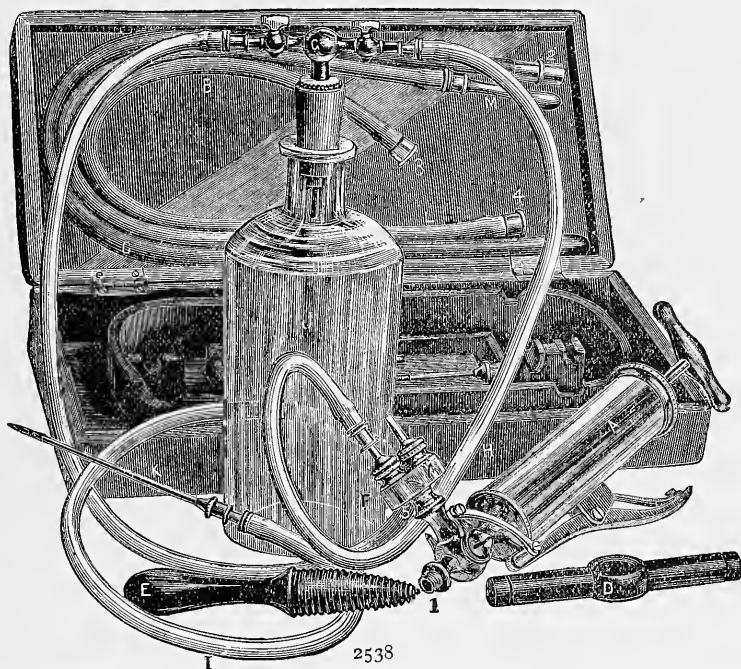
FIG.				
2529	Maw's English Stomach Pump.....	\$15 00		
2530	Gray's " " "	13 50		
2531	Plain " " "	6 75		
*2532	Sharp & Smith's " " N. P.....	13 50		
2533	Tiemann's " " "	12 50		
2534	" H. R. "	9 00		
*2535	Toswell's Siphon " "	2 00		
2537	Stomach Pump attachment for C. & S. Aspirator.....	4 50		
*2538	Excelsior Stomach Pump, Aspirator and Enema Syringe combined (see next page).....	15 00		



Washing out the stomach, and the aspiration of liquids secreted by it, is more and more practiced in Germany, since Kussmaul highly praised this method. Dr. Schliep uses the Syphon Principle in nearly all affections of the stomach, especially in chronic gastritis, with or without dilatation. The cure of chronic catarrh, according to his account in the *Deutsche Klinik*, vol. xiv., would require a limited number of applications. In simple catarrh five would suffice on an average. He uses this method even in dyspepsia of consumptive patients. In dilatation of the stomach, he empties that organ with the pump every day. He performs the washing out, even in cancer, with pure water; or adds bicarbonate of soda to the water if the liquids be very acid; or permanganate of potash if these liquids show signs of fermentation; carbolic acid when they contain vegetable parasites; boracic acid as a disinfectant, and tincture of myrrh, in atonic dyspepsia with abundant secretion of mucus.

Instruments designated by a * are illustrated.

THE EXCELSIOR STOMACH PUMP, ASPIRATOR AND ENEMA SYRINGE.



Stomach Pump.—A, Stomach Pump. B, Suction Tube, connects at Nos. 1 and 3. C, Stomach Tube, connects at Nos. 2 and 5. D, Mouth Gag. E, Mouth Screw. **Aspirator.**—A, Pump. F, Valve Box, connect as per cut. G, Double Stop Cock connect with tubes H and I. H—I, Tubing connect to Force or Exhaust with Valve Box as per Arrows. J, Bottle. K, Needle. **Enema Syringe.**—A, Pump. B, Suction Tube, connect at Nos. 1 and 3. L, Tubing, connects at Nos. 4 and 5. M, Rectal Nozzle.

A complete Stomach Pump, Aspirator and Enema Syringe, combined, has long been sought for by the medical profession. In offering the Excelsior Pump and Aspirator we have combined three distinct instruments, each complete in itself, thus making one portable apparatus, and avoiding the necessity of purchasing each instrument separately.

In manufacturing the above we have taken mandril drawn tubing for the barrel of the pump which offers an even surface to the packing of the piston and insures perfect suction.

The valves in Valve box F, are made of metal, ground to fit the sockets securely, and cannot be injured by fluids or become dried as the oiled-silk valves formerly used. This enables the practitioner to use the Pump both for Forcing or Exhausting Fluids or Air.

The valves in Valve Box F can be easily cleansed by unscrewing the conic nozzles at F.

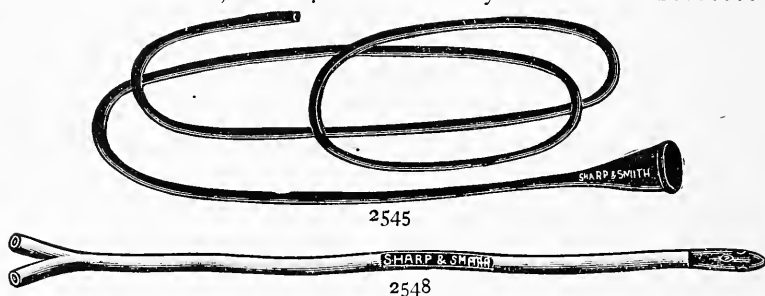
In order to make as compact and portable an instrument as possible, we have fitted the Double Stop Cock G with a Conic Soft Rubber Stopper, which will fit any ordinary bottle, thus avoiding the necessity of carrying a bottle in the same case with the Pump.

All the metal parts are Nickel-plated and the whole is encased in a polished Wood Box, Velvet lined.

The combinations of parts for Stomach Pump, Aspirator or Enema Syringe separately, are formed as above. For prices, see preceding page.

MOUTH AND THROAT INSTRUMENTS.

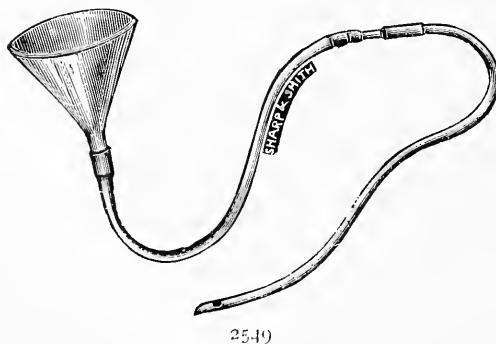
FIG.					
2539	Best English Stomach tubes.....	\$	1	50	
2540	English " " funnel end.....		1	50	
2541	Plain English " "		1	00	
2542	Silk Web " " best.....		2	50	
2543	" " " " funnel end.....		3	00	
2544	Soft Rubber " "		1	50	
*2545	" " " " funnel end.....		2	00	
2546	" " " " " with bulb in center....		2	00	
2547	" " " " Jaques.....		1	50	
*2548	English Double Channel Stomach Tube.....		3	00	
2548A	" " " " " silk.....		4	50	
*2549	Dr. S. S. Cohen's Apparatus for Lavage in the treatment of gastric affections, with 28 inch Velvet Eye Stomach Tube.....		2	25	
2549A	Dr. S. S. Cohen's Apparatus for Lavage in the treatment of gastric affections, with 24 inch Velvet Eye Stomach Tube.....		1	85	



LAVAGE IN THE TREATMENT OF GASTRIC AFFECTIONS.

BY SOLOMON SOLIS-COHEN, M. D., of Philadelphia, Pa.

Any agent, or any method that promises to enlarge our therapeutic resources against those obstinate conditions of "gastric catarrh," "functional dyspepsia," etc., that are a source of distress to the patient, of annoyance to the physician, and of profit to the pepsin and patent medicine manufacturers, deserves at least a respectful consideration. The method that I desire briefly to present to the Society this evening—lavage, or irrigation of the stomach—has been employed for many years in Europe, so that it can no longer be considered to be merely on trial. In America, however, it has not won general introduction, nor am I aware that any discussion of it has been had before this body. This, then, is my excuse for calling attention to a subject in connection with which I have nothing new to communicate.



LAVAGE IN TREATMENT OF GASTRIC AFFECTIONS.—Continued.

The manner of performing lavage, recommended by the latter observer, is that which I have followed in the few cases in which I could induce private patients to submit to it. The results obtained in these cases have been sufficiently encouraging to induce me to continue, at least to propose it wherever it seems applicable.

The apparatus and its employment are sufficiently simple. An œsophageal tube, with blunt, double-eyed extremity of flexible rubber, about twenty-eight inches long, and from one-quarter of an inch to a little less than half an inch in diameter—practically an enlarged catheter, and made of similar material—is attached by a small section of glass tubing to a soft rubber tube about one yard in length, into the free extremity of which a glass or rubber funnel of from six ounces to eight ounces' capacity, is inserted.

The patient sits or stands, facing the physician. The œsophageal tube having been dipped into warm water or warm milk, is placed within the entrance of the œsophagus, and is then propelled by successive pushes into the stomach, the process being facilitated by efforts at deglutition on the part of the patient.

The first introduction of the tube, and possibly the second and third, will occasion more or less dyspnœa, often nausea and retching, rarely vomiting. These effects, though partly physical, are largely psychical, and will disappear with tolerance. The dyspnœa may be immediately checked by insisting on full inspirations. Nausea is overcome as soon as the water enters the stomach, floating the tube away from immediate contact with the mucous membrane. In highly neurotic subjects it may be well to prepare for the operation, at first, by administering full doses of bromides. I have tried anointing the end of the tube with a solution of cocaine in glycerin, but cannot claim any striking benefit from the procedure. Firm but skillful handling of the tube is the best sedative.

Sometimes during the withdrawal of the solution solid particles of food (grains of corn in one of my cases) may become impacted in the eyes of the tube, and the flow of liquid will cease. A little more of the solution must then be introduced, both to wash away the obstruction and to re-establish the syphon current. If the tube should be pushed too far into the cavity of the stomach, it may curve upon itself, and the syphon will not work. Withdrawal of the tube for a few inches will remedy this; if the flow is not readily established, it is said that it may be favored by manipulation of the stomach, and efforts at coughing may be made by the patient. I have not had occasion to resort to these devices.

When *lavation* alone (washing) is the object of the procedure, a weak alkaline solution is employed; a drachm or two of sodium sulphate, sodium chloride, sodium borate or sodium bicarbonate, in a quart of warm water, at about 100° F.

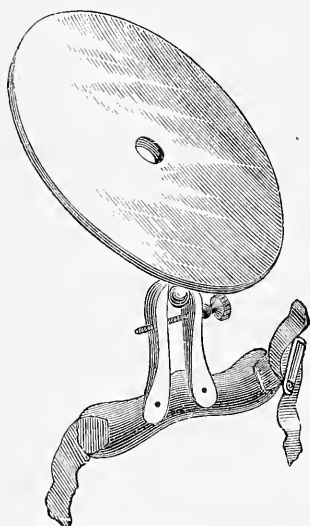
Should it be considered necessary, however, various sedative or antiseptic medicaments may be added to the lavage solution. Those most highly recommended are resorcin (1 per cent.), boric acid (1 per cent.), creasote (1 per cent.), carbon disulphide water (one part of a solution containing 15 grains to the quart, to two parts of water), charcoal powder (two to four tablespoonfuls), chloroform water (saturated), bismuth subnitrate (two tablespoonfuls to the pint).

In the use of agents, like resorcin, carbolic acid, etc., the liability to absorption if the solution be not all removed, must not be forgotten. In using what he terms "milk of bismuth," Dujardin-Beaumetz advises that the solution be allowed to remain a few minutes in the stomach, so as to allow the bismuth to be deposited; after which the supernatant liquid may be withdrawn.

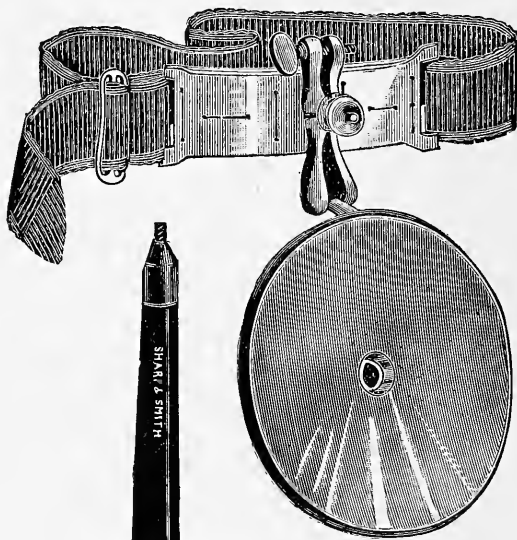
Lavage should be performed when the stomach is empty; therefore some authors recommend the hour of rising in the morning. I have found noon—say four or five hours after a light breakfast—or the same interval after lunch or dinner, to be more convenient for myself, and to answer as well in most instances. One lavation daily is usually enough. After a while the intervals may gradually be lengthened, until the process is discontinued.

MOUTH AND THROAT INSTRUMENTS.

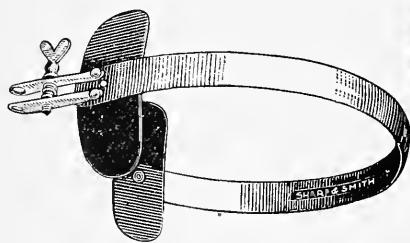
FIG.							
*2550		Head Mirrors with plain head band, 3 inch.....					\$ 3 75
2550 A	"	"	"	"	3½ "		4 25
2550 B	"	"	"	"	4 "		5 00
*2551		with improved head band, 3 inch.....					5 25
2551 A	"	"	"	"	3½ "		5 75
2551 B	"	"	"	"	4 "		6 50
*2552		" Schroeter's head band, 3 inch.....					4 25
2552 A	"	"	"	"	3½ "		4 75
2552 B	"	"	"	"	4 "		5 50



2550



2551



2554



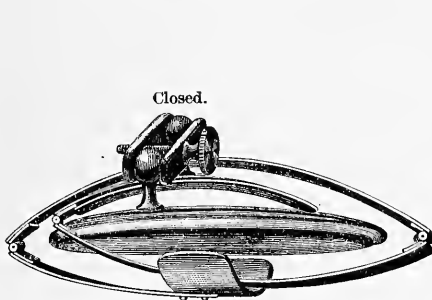
2555

Fig. 2554. Metal Head Band for holding a Head Reflector on the Forehead. There is a joint on top, in the middle of the band, which allows the posterior half to be turned into the anterior half. The pads are made of black rubber, and may be turned into line with the head band. The metal band should not be longer than is required to easily reach from the forehead to the occiput. For price see next page.

All instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

FIG.	2553	Ingals' Mirror and Head Band, 4 inch.....	\$ 5 50
	*2554	Rumbolds' Head Band to go over the head.....	2 50
	*2555	Simrock's " " " " ".....	3 25
	*2556	Sardy's Combined Head Band and Mirror Protector for 3 inch Mirror.....	2 40
	2556A	Sardy's Combined Head Band and Mirror Protector for 3½ inch Mirror.....	2 50
	2556B	Sardy's Combined Head Band and Mirror Protector for 4 inch Mirror.....	2 75
	2556C	Sardy's Spectacle Frame Head Band.....	3 00
	2557	Semeleder's " ".....	6 00
	2558	Plain Head Bands (see Fig. 2550).....	1 00
	2559	Schroeter's Head Bands, with Nose Rests (see Fig. 2552).....	1 50
	2560	Improved " " " " " (see Fig. 2551).....	1 50



2555



2555

SARDY'S COMBINED HEAD BAND AND PROTECTOR.

(Patent applied for.)

These cuts, figures 2556, show a new head band which possesses several advantages over the old styles.

When closed it affords perfect protection to the mirror, and is convenient to carry.

When open it is self-adjustable to any forehead, and rests more comfortably and with greater security than other head bands. Any mirror attached to it can be brought into perfect juxtaposition with the eye, and when not in use can be easily turned up from the forehead.

They are made of the best material, with silk bands, and metal part oxidized so as to prevent reflection.



IN USE

2556



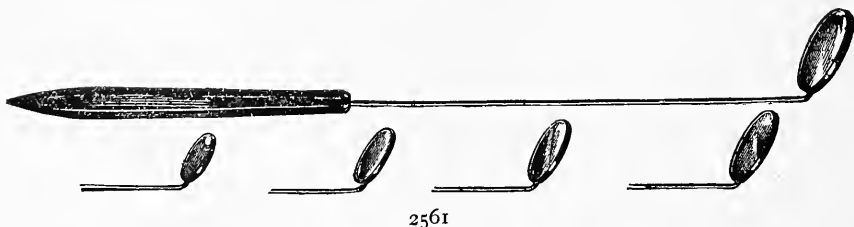
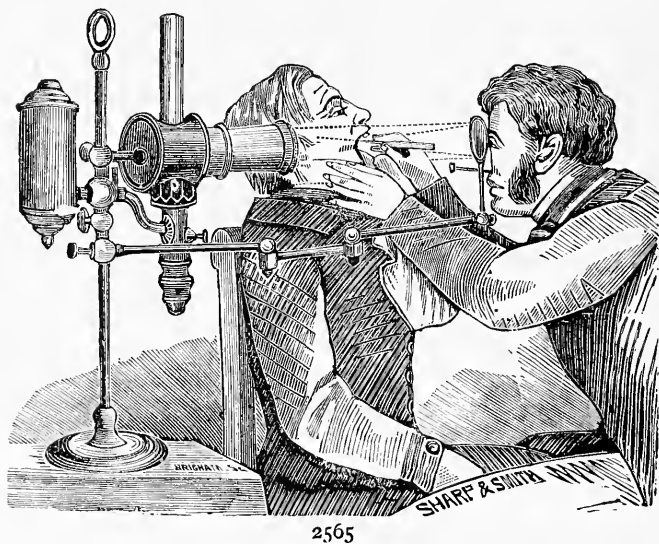
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2556

All instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

FIG.	
*2561	Throat Mirrors, in handle, 5 sizes. ....each \$ 65
2561A	“ “ without handle, 5 sizes. “ 55
2561B	“ “ set of 5 in case, with one Universal handle.... 4 00
2562	“ “ extra quality. ....each 75
2563	“ “ oval. 1 00
2564	Tobold's Large Laryngoscope in case, with Head Mirror and two Throat Mirrors. 18 00
2564A	Tobold's Small Laryngoscope in case, with Head Mirror and two Throat Mirrors. 10 50
*2565	Tobold's Large Laryngoscope in case, with Student Lamp.... 20 00
2265A	“ Small “ “ “ “ “ 15 00
2556	Seeger's Modification of Tobold's Laryngoscope, for gas. 25 50
*2567	Stucky's Improved Laryngoscope complete (see page 480). ... 50 00

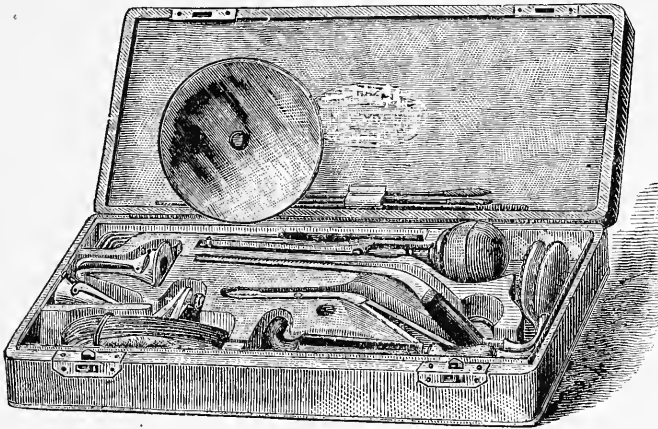


Instruments designated by a * are illustrated.

LARYNGOSCOPIC CASES.

FIG.

2567A	Sharp & Smith's No. 1 Laryngoscopic Set	\$ 19 25
2567B	" " No. 2 " " "	15 00
2567C	" " No. 3 " " "	11 00
2567D	" " No. 4 " " "	9 00
2567E	Fowler's Laryngoscopic Set	13 50
2567F	Bosworth's " " "	16 50



2567-A

Fig. 2567A Sharp & Smith's No. 1. Laryngoscopic Set contains: 1 $3\frac{1}{2}$ inch Glass Concave Mirror, 1 Schroeter's Head Band, 1 Post Nasal Syringe, 1 Scoop Powder Blower, 1 Pair Polypus Forceps, 3 Throat Mirrors, 2 Universal Handles, 1 Tongue Depressor, 1 Sponge Holder to fit Universal Handles, 1 Set Toynbee's Ear Specula.

Fig. 2567B Sharp & Smith's No. 2. Case containing $3\frac{1}{2}$ inch Glass Concave Mirror, Head Band and Handle, 3 Throat Mirrors, 1 Post Nasal Syringe, 1 Sponge Holder, 1 Brush Holder and 6 Brushes, 1 Tongue Depressor, 2 Universal Handles.

Fig. 2567C Sharp & Smith's No. 3. Case containing $3\frac{1}{2}$ inch Glass Concave Mirror, Head Band and Handle, 3 Throat Mirrors, 1 Universal Handle, 1 Tongue Depressor.

Fig. 2567D Sharp & Smith's No. 4. Case containing 3 inch Glass Concave Mirror, Head Band and Handle, 2 Throat Mirrors, 1 Universal Handle, 1 Tongue Depressor.

2567E Dr. Fowler's Case containing $3\frac{1}{2}$ inch Glass Concave Mirror, Head Band, 1 Tongue Depressor, 2 Vials, 3 Throat Mirrors, 2 Universal Handles, 1 Brush Holder, 6 Brushes.

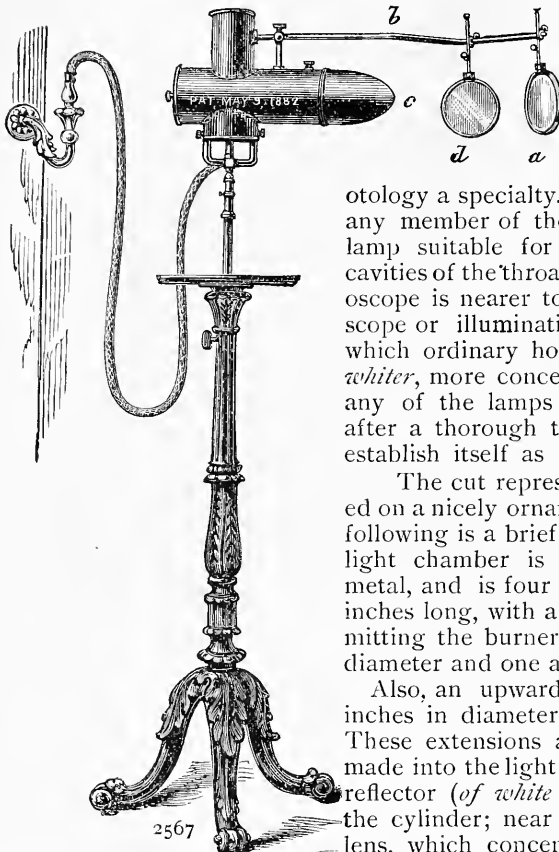
2567F Dr. Bosworth's Case containing $3\frac{1}{2}$ inch Glass Concave Mirror, Nasal Rest Head Band, 1 Post Nasal Syringe with Ear Nozzle, 2 Throat Mirrors, 2 Universal Handles, 1 Tongue Depressor, 1 Sponge Holder, 1 set Toynbee's Ear Specula.

All of our Cases are morocco covered and lined with velvet.

Laryngoscopic sets put up to order.

Instruments designated by a * are illustrated.

LARYNGOSCOPE.



We desire to call the attention of the profession to a new illuminating lamp, especially adapted to, and filling, as we believe, the wants of those who make laryngology, rhinology and

otology a specialty. Indeed, we cannot see how any member of the profession can do without a lamp suitable for thoroughly illuminating the cavities of the throat, nose and ears. This Laryngoscope is nearer to perfection than any laryngoscope or illuminating lamp we have ever seen, on which ordinary house gas is used. It gives a *whiter*, more concentrated and intense light than any of the lamps in the market. We believe, after a thorough trial by the profession, it will establish itself as the best laryngoscope.

The cut represents the Laryngoscope mounted on a nicely ornamented iron table-stand. The following is a brief description of the lamp: The light chamber is made of a cylinder of sheet metal, and is four inches in diameter and eleven inches long, with a downward extension (for admitting the burner) three and one-half inches in diameter and one and one-half inches in length.

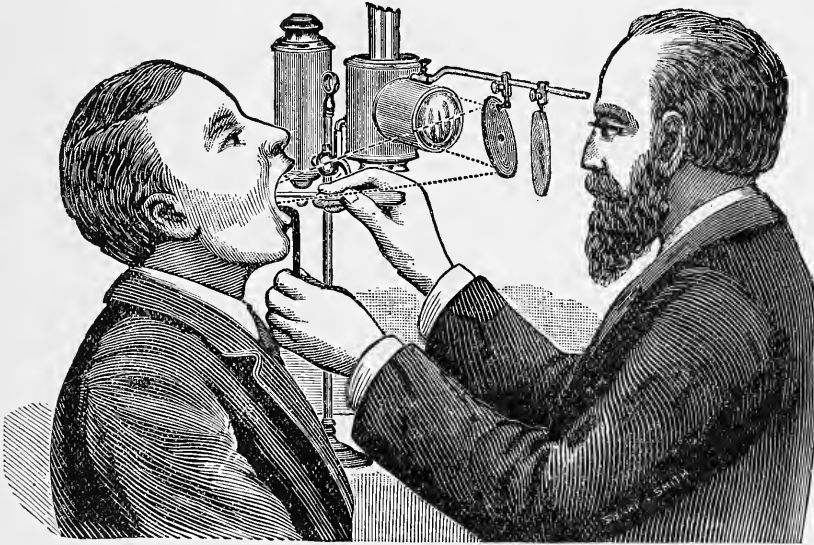
Also, an upward extension or chimney three inches in diameter, and three inches in length. These extensions are nicely fitted into openings made into the light chamber. A concave metallic reflector (*of white metal*) is placed in one end of the cylinder; near the other is a double convex lens, which concentrates the rays of light from the burner. The lens is fastened in position by a thumb screw. A bent arm, about one-fourth of an inch in diameter, is secured about two inches above the light chamber—by being passed through a perpendicular post on the light chamber—and is screwed into a threaded perforation in the chimney. The rod extends about two feet from the chimney, and serves to hold the mirrors in position. On this rod is fastened by a thumb screw, two mirrors (four inches in diameter) which have ball and socket joints, and can be placed in any position—one is a plain mirror, by which the patient can see, in his own throat and nose, what the operator or any one standing behind his chair sees. This is a great desideratum when you desire to demonstrate to the patient or his friends the condition of the diseased organ. The other mirror is convex, for reflecting the light. Both the plain and convex mirrors can be used for reflecting, if desired, in this way concentrating all the light coming from the lamp. The light chamber has a wedge shaped cylinder, which is fastened on the end opposite the reflector, and serves to shade the eyes of the operator. The shade and mirrors can be changed, so that the operator can have his patient on his right or left side.

Its convenience, simplicity, and stronger, whiter, and more concentrated light commend it at once to the profession, and especially to laryngologists.

For price, see page 478.

LARYNGOSCOPES.

FIG.		
*2568	Devilbiss' Laryngoscope with Lamp (complete).....	\$15 00
2568-A	“ “ without Lamp.....	11 50
2568-B	“ “ Condenser, plain Mirror and Mirror bar.....	8 50
2569	Czermak's Laryngoscope.....	7 50
2570	Ellsberg's Pocket Laryngoscope.....	4 50
2571	Semeleder's Laryngeal Instruments..... each	7 50
2572	Gibbs' “ Ecraseur.....	2 25



2568

This Laryngoscope is a modification of Mackenzie's light concentrator, and although simpler in construction than Tobold's yet it possesses several advantages not found in the latter instrument.

It is provided with two mirrors, one plain and the other concave, both of which are attached to a stationary mirror bar by means of ball and socket joints so arranged that they may be easily changed to any position on the bar, and inclined to any angle.

The plain mirror enables the physician to show his patient the condition of the affected parts, and, if needing treatment, explain its necessity. By this method patients may oftentimes see the extent and nature of their disease, and thus be induced to receive treatment who might otherwise consider it of but little importance, not demanding medical assistance. We venture the assertion that patients will go for years with an ulcerated or otherwise inflamed condition of the nares, who, if shown the actual state of affairs, would give the matter the attention that the case demanded, for not one out of a large number, who, if the same diseased condition existed externally, would not seek medical assistance, and that promptly. If deemed advisable, the patient may be shown from time to time the changing condition of his disease, and thus keep interested in its treatment. By this device the patient can see to keep himself "in light," thus relieving the physician from the necessity of frequently adjusting the mirror.

This Laryngoscope can be adjusted to a student's lamp, and may be raised or lowered by means of a single set screw. This advantage will be appreciated by those who have used the "Tobold," for in order to change the height of the latter, it requires the adjustment of three screws.

LARYNGOSCOPES.

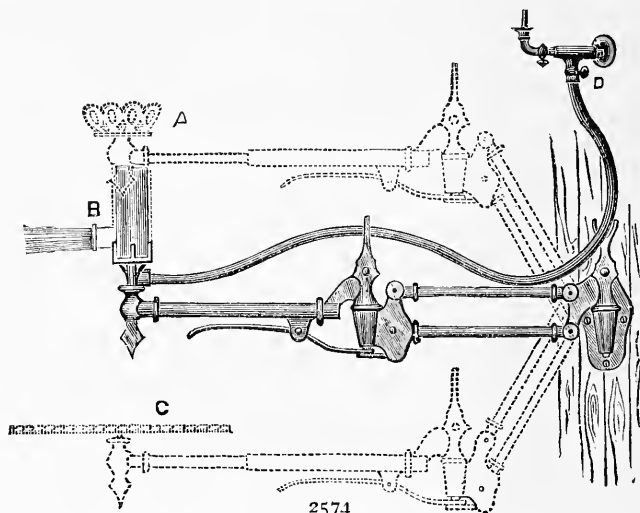
FIG.	2573	Bishop's Laryngoscope.....	\$ 3 50
	*2574	" " and Bracket, polished brass.....	13 50
	2575-A	" " " Nickel-plated.....	14 50
	2575-B	" " Bracket only.....	10 00

A NEW ADJUSTABLE LAMP BRACKET.

Reprinted from The Journal of the American Medical Association.

BY SETH S. BISHOP, M. D., of Chicago, Ill.

The accompanying cut illustrates the working of an adjustable lamp bracket I have designed for carrying lights, instruments, etc. It overcomes the difficulty of properly illuminating various parts from any desired direction, and at any given angle. The lamp is easily adjustable to any point lying within a perpendicular line a foot and a half in length (from A to C) and it will swing



through the arc of a circle, having a radius of three feet. It is supplied with joints, parallel arms and an extensible lamp holder, in such a manner as to place the light (B) either within a few inches of any wall to which it is attached, or at any intermediate point in a horizontal, to a distance of three feet from the wall. It is so constructed that in order to raise or lower the light, you need only to press the thumb and finger on the extension arm and brake beneath, so as to close them together; then set the lamp at the desired point; release the brake, and it sets automatically, holding the light wherever it is placed. These points will be appreciated by those who have to use light concentrators on the imperfect brackets now in use.

The lamp holder is prepared to receive an Argand burner connected with a flexible gas tube, so that the bracket may be attached to a wall or desk in any part of an office or house, and connected with the gas fixtures like an ordinary drop lamp. Or, where there is no gas, an oil lamp holder (A) is screwed on instead of a gas burner (B), and an oil lamp of large size may be used to obtain brilliant illumination. The bracket is very strong, and will support a weight of five pounds or more. Its utility is extended by substituting a tray (C) for the lamp receiver (A), so as to make it a convenient instrument holder for surgeons and dentists alike. I have employed this bracket in my office a sufficient length of time to demonstrate its superiority over any other that I have been able to find after a most exhaustive search. The bracket is made of brass or iron, and is an elegant addition to any office, both as to utility and beauty.

The nickel-plated light concentrator (B) of my own design, is made to use over any Argand chimney, and is much less expensive than any in the market.

The bracket is fitted with an oil lamp in the holder (A) and a light concentrator when so ordered.

CONDENSERS, Etc.

FIG. *2576	Boekei's Light Condenser and Bracket, complete	\$12 50
*2576A	“ “ “ only	9 00
*2576B	“ Bracket and Mirror Bar for Light Condenser.	5 00
*2576C	“ Light Condenser without Bracket or Mirror Bar.	7 50

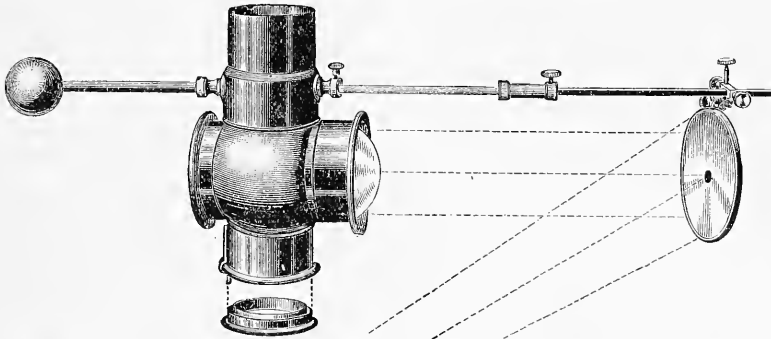


Fig. 2576. Bracket and Laryngoscope Combined.



Fig. 2576 B.

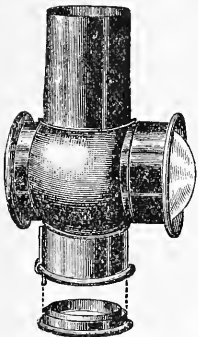


Fig. 2576C. Plain Laryngoscope.

This is preferable to any other Light Condenser for the following reasons:

First. On account of the spherical or round form of the flame chamber, which has a tendency to concentrate the rays, producing thereby a more powerful light than could be otherwise obtained. The light, thus condensed, is thrown forward through the lens on to the mirror by a reflector in the rear.

Second. To avoid the annoyance of placing the mirror in the right position each and every time when brought to use, we have added a rod or bracket fastened to a band, which slides over the chimney and rests on the sphere, while the rod penetrates the chimney, holding it steadily and parallel with the focal line. At the extreme end of this rod the mirror is suspended by means of a ball joint,

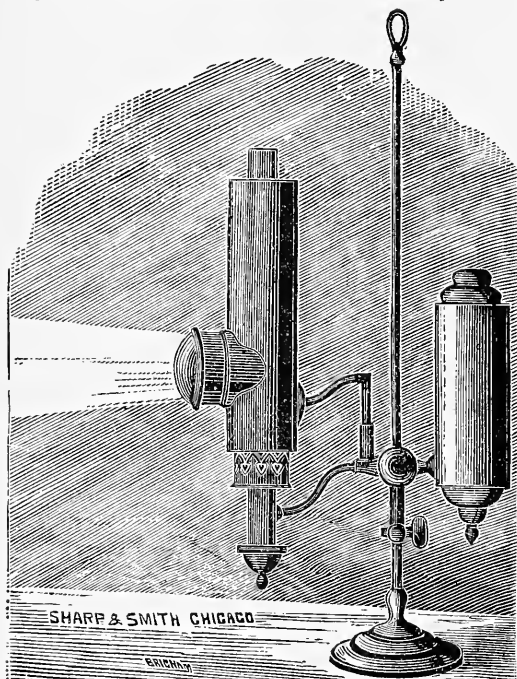
similar to the one used on the improved headbands, to allow the direction of the light wherever needed. The ball joint can be raised or lowered according to the size of the mirror. With this bracket the operator is never hindered in his movements, as the mirror is thereby always held in the focal line, which is most decidedly an improvement over the independent stand or headbands and all the other devices that have been used before for that purpose.

Third. A ball-shaped weight which screws on the back of the band counterbalances the mirror when adjusted to a gas bracket or lamp. The Laryngoscope with its attachments is constructed with screw-joints and can readily be taken apart for convenient packing.

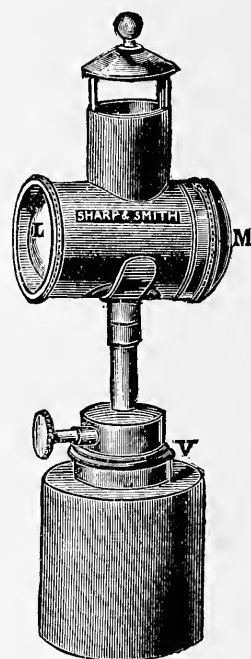
In connection with the above we recommend our Adjustable Gas Bracket.

CONDENSERS, ETC.

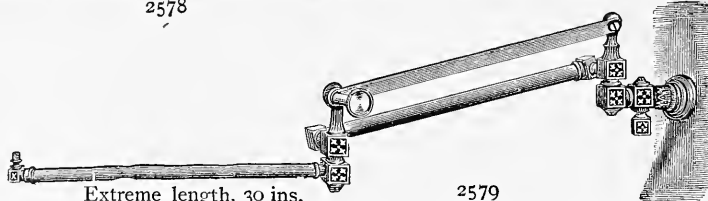
FIG.				
2577	Mackenzie's Light Condenser.....			\$5 00
2577-A	" " " with Student Lamp.....			9 00
*2578	Ingals' " " " " " ".....			9 00
2578-A	" " " " " ".....			5 00
			Brass.	N. P.
*2579	Boekel's Adjustable Gas Bracket....	\$7 50		8 00
*2580	Collins' Lamp.....			5 25
2581	Miller's ".....			11 00
2582	Students' Nickel Plated Lamp.....			4 00



2578



2580



2579

To satisfy the long felt want for a good adjustable Gas Bracket, to be used especially in connection with our "Improved Mackenzie Laryngoscope," we have succeeded in constructing one which we think will gratify the demand of the trade in every respect.

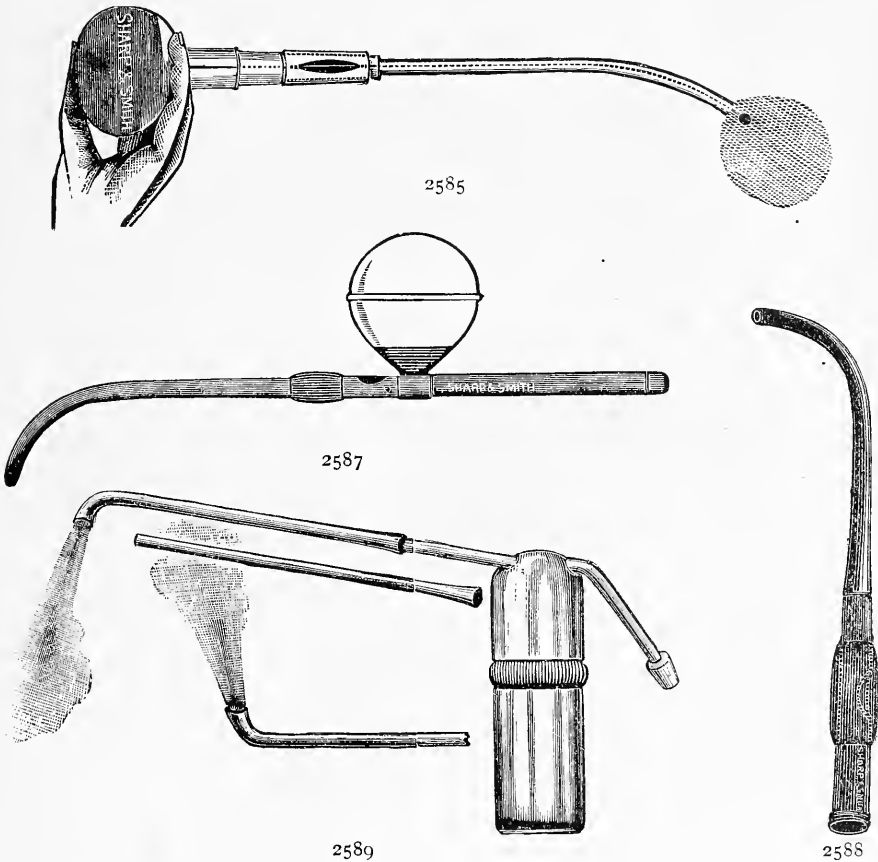
The Bracket (as represented in the above cut) is more easily raised and lowered than any of the Brackets that have been in the market before.

As the handle "a" is at the same time the set-nut for the Friction Disc, by means of which the Bracket is held in position, only one hand is required to loosen, move and set the Bracket with ease.

This Bracket is made stronger than any of its kind in the market, fully strong enough to bear the required weight.

POWDER BLOWERS.

FIG.	2583	Ellsberg's Powder Blower.....	\$	1	65
	2584	Bosworth's Glass Powder Blower.....			35
	2584-A	“ Hard Rubber Powder Blower.....	1	00	
*	2585	Clay's “ “ “ “	1	00	
	2586	Leffert's one tip “ “	1	75	
*	2587	“ “ “ “	1	75	
*	2588	“with mouthpiece “ “	1	00	
*	2589	Devilbiss' “ “	1	00	
	2589-A	“ “ “ with Bulb.....	1	50	
	2589-B	“ “ “ with Bottle and Bulb.	1	50	
	2590	Goodwillie's “ “	1	25	
	2591	Kelly's “ “	2	00	



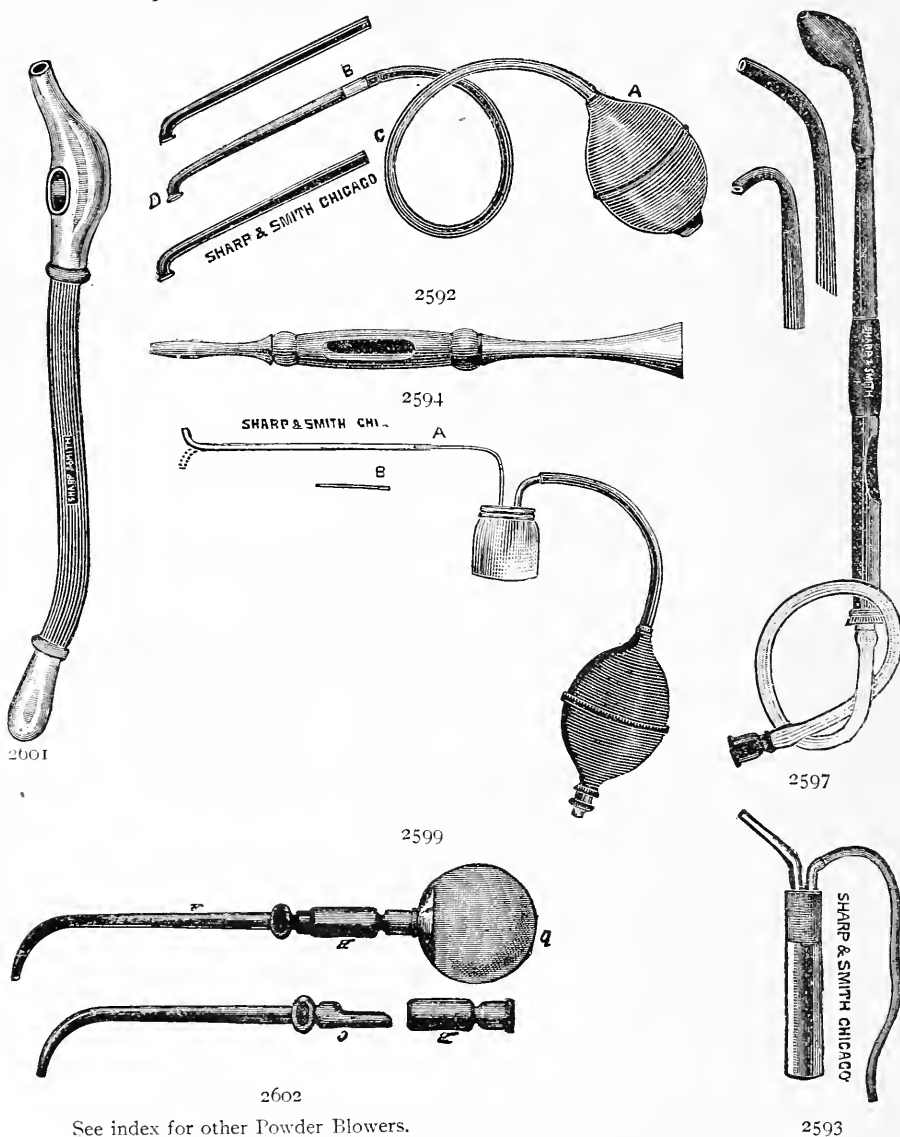
THE DEVILBISS POWDER BLOWER

Can be used with either condensed air apparatus or rubber bulb. Can readily change from one kind of powder to another by slipping cups apart, empty and refill with any powder that may be desired. It diffuses the powder perfectly, as it carries it by the counter current of air, and not by a direct one, which is always liable to throw the powder in a bunch.

See Index for other Powder Blowers.

POWDER BLOWERS.

FIG.				
*2592	Ingals'	Powder Blower	.....	\$1 00
*2593	Bishop's Pocket	" "	.....	50
*2594	Knapp's	" "	.....	1 00
2595	Smith's	" "	.....	2 00
2596	Robinson's Reversible Powder Blower,	two tips	.....	2 25
*2597	"	Powder Blower, with mouthpiece	.....	3 75
2598	Oliver's	" "	.....	1 85
*2599	Gradle's	" "	.....	1 50
*2601	Sajou's (for patients) Powder Blower	.....	.....	50
*2602	Scoop	" "	.....	1 00

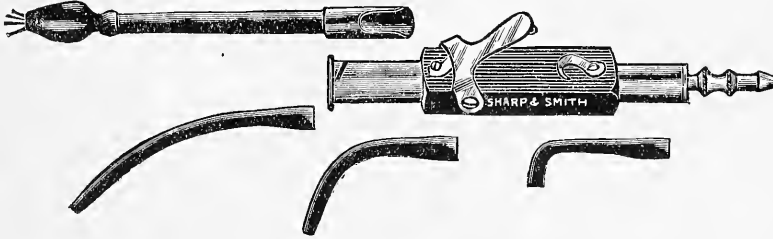


See index for other Powder Blowers.

MOUTH AND THROAT INSTRUMENTS.

FIG.

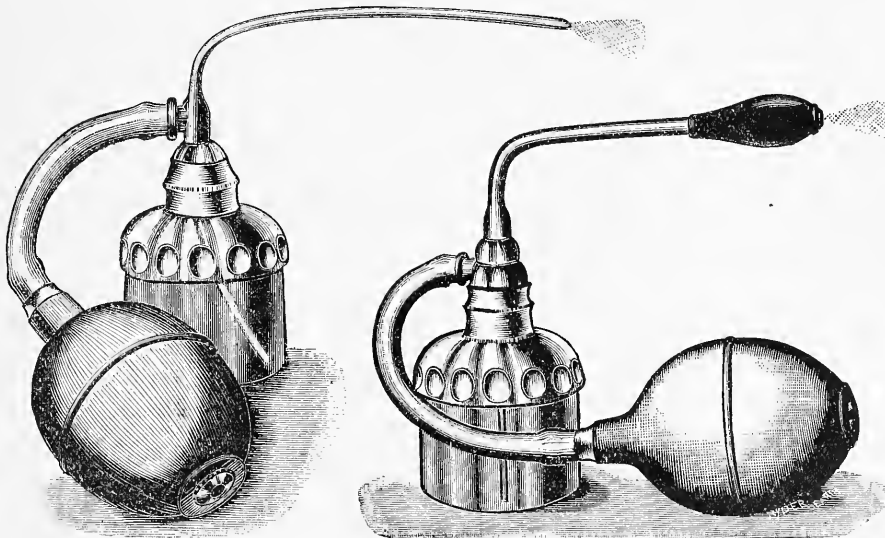
*2603	Millard's No. 9 Laryngeal Powder Blower.....	\$1 50
*2604	“ “ 11 Throat “ “	1 50
*2605	Morgan's Powder Blower.....	5 00
2605-A	Mattson's No. 1 Powder Blower (see page 426).....	1 00
2605-B	“ “ 2 “ “ (“ “ 426).....	1 25
2606	Butts' “ “	1 50



2605

MORGAN'S POWDER BLOWER.

Among the many Powder Blowers suitable for use with compressed air, we particularly recommend two, one recently devised by Dr. E. Carroll Morgan, of Washington, D. C., and one by Dr. A. Devilbiss, of Toledo, O. The former is a perfect instrument, suited to the wants of the specialists and others who need an instrument for frequent and constant use. As shown by Fig. 2605, it consists of a hard rubber handle, to which is attached a scoop for holding the powder. The powders should be kept in small wide-mouth bottles so that the quantity to be administered may be taken up in the scoop and the latter attached to the handle when it is ready for use. It is provided with four tips, rendering it applicable for all kinds of work.



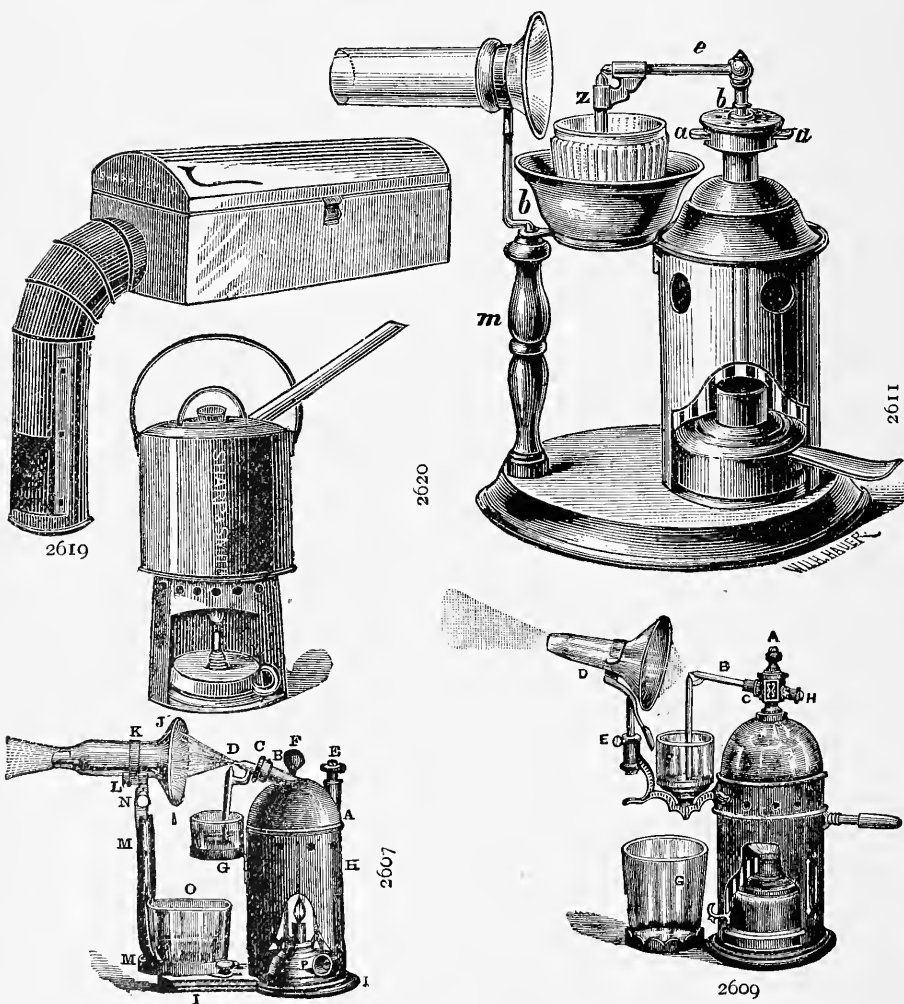
2603

2604

All instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

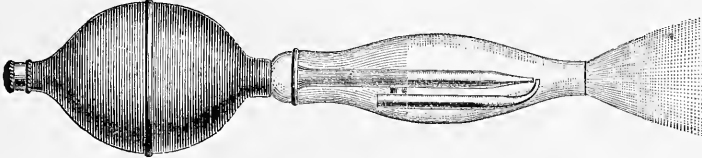
FIG.						
*2607	Codman & Shurtleff's Steam Atomizer.....					\$4 00
2608	" " Nickel Plated Steam Atomizer.....					5 50
*2609	Sharp & Smith's Steam Atomizer.....					3 50
2610	Tiemann & Co.'s " "					4 00
*2611	German Nickel Plated " "					2 50
			Glass.	Hard Rubber.	Metal.	Silver.
2612	Atomizing Tubes for C. & S. Atomizer..	20c	\$1 35	\$1 50		2 00
2613	" " " T. & Co.'s " ..	20c	1 35	1 50		2 00
2614	" " " S. & S. " ..	20c	1 35	1 50		2 00
2615	" Bulbs, single.....					50
2616	" " double.....					75
2617	" " pure gum, double					1 00
2618	" " " " " and net.....					1 25
*2619	Hot Air Bath.....					4 00
*2620	Croup Kettle.....					4 00
2621	Waxham's Feeding Bottle.....					1 25



MOUTH AND THROAT INSTRUMENTS.

FIG.			
*2622	The "Only" Ointment Atomizer.....		\$1 00
*2623	Devilbiss' Vaseline " with Bulb.....		2 00
2623-A	" " " without Bulb.....		1 50

THE "ONLY" OINTMENT ATOMIZER FOR WARMING AND SPRAYING PURE VASELINE AND OINTMENTS. (Patent Pending.)



2622

The attention of the medical profession is respectfully called to the invention figured above, of an Atomizer, especially designed for warming and spraying pure Vaseline, plain or medicated, for the treatment of such diseases of the respiratory organs as Nasal Catarrh, Hay Fever, Asthma, Bronchitis, Consumption, etc.

The application of the healing and soothing properties of warm Vaseline Spray to the treatment of this class of diseases commends itself to the intelligence of every one at once, while ample experience with the method has fully confirmed its value.

This Atomizer renders possible the use of pure Vaseline Spray, applied warm, by which its remedial effects are much increased.

A great variety of medicines are combined with Vaseline, in extemporaneous prescriptions by physicians to use in this instrument, among the most successful of which may be mentioned: Cocaine, Menthol, Camphor, Carbolic Acid, Iodoform, Bismuth, Sub. Carb., Zinc Oxide, Hamamelis, and Ol. Eucalyptus.

There has been a question about the entrance of the Spray into the bronchial tubes, the affirmative of which is proven by the sensations of the patients, AND THE REAPPEARANCE OF THE SPRAY UPON THE EXPIRED BREATH.

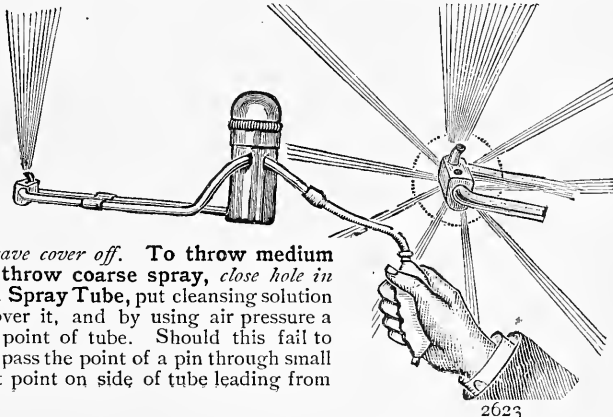
The inspired air passing over parts coated with medicated Vaseline becomes impregnated with the remedy, if volatile, and carries it much farther along the respiratory track.

The application of plain Vaseline Spray, in cold weather, to the throat, nasal passages and bronchial tubes, has been found superior to any oro nasal respirator as a protective.

THE DEVILBISS SPRAY PRODUCER.

This instrument throws a spray in any direction desired. Will throw oils and vaseline by heating it from point to cup to blood heat.

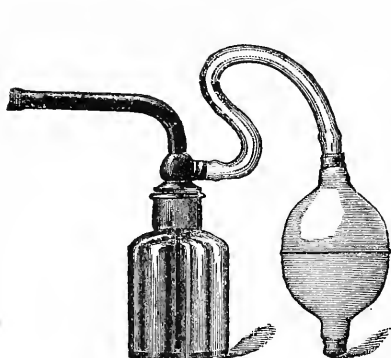
To throw fine spray, leave cover off. To throw medium spray, place cover on. To throw coarse spray, close hole in cover with finger. To Clean Spray Tube, put cleansing solution in cup, place thumb tightly over it, and by using air pressure a stream will be thrown from point of tube. Should this fail to clean the tube, take out point, pass the point of a pin through small holes, then replace with bent point on side of tube leading from cup.



2623

MOUTH AND THROAT INSTRUMENTS.

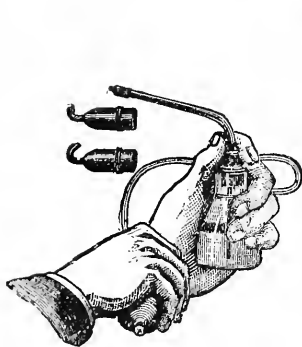
FIG.				
2624	Essex Atomizer, single bulb.....			\$1 00
*2625	No. 59. Davidson Atomizer, single bulb.....			1 75
*2626	No. 62. " " for Cocaine.....			1 00
2626A	No. 65. " " (see Ingals' Nasal Instruments)...			3 50
2626B	No. 66. " " (" " " ")...			3 50
*2627	Gilbert's Atomizer, single bulb.....			1 50
2628	Delano's " " " ".....			1 50
*2629.	No. 20. Tyrian Atomizer, double bulb.....			1 50
*2630	Clark's " " " ".....			2 25
2631	Hall's " " " ".....			2 50
2632	Leffert's, one tip " ".....			2 25
2633	" three tips " ".....			3 00



2629



2627



2625

DAVIDSON RUBBER CO.
2626

Sharp & Smith.

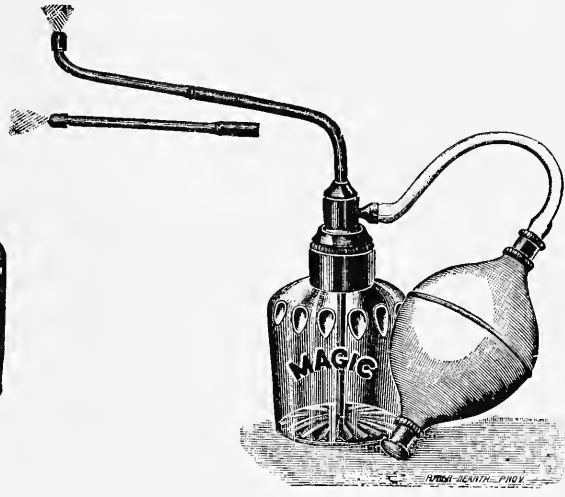
2630

All Instruments designated by a * are illustrated.

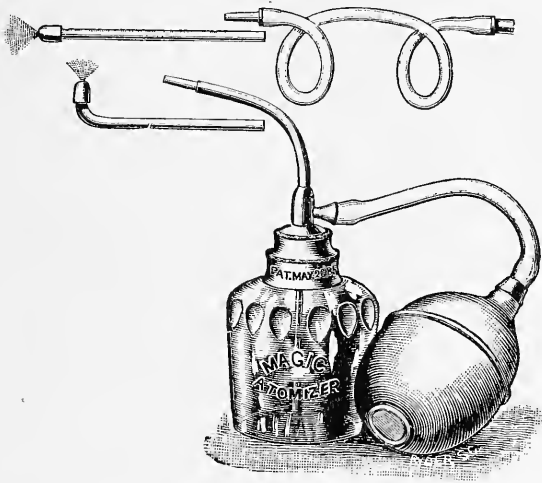
MOUTH AND THROAT INSTRUMENTS.



2634



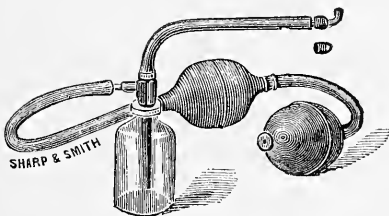
2636



2635



2647



2644

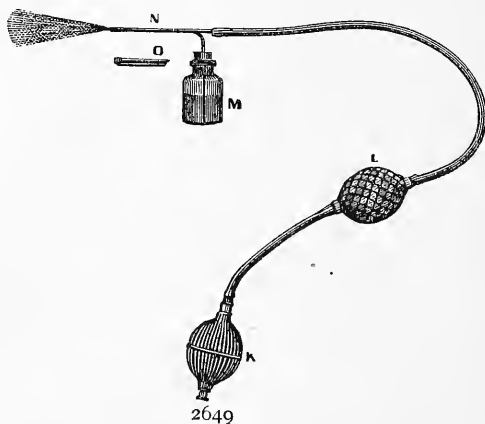
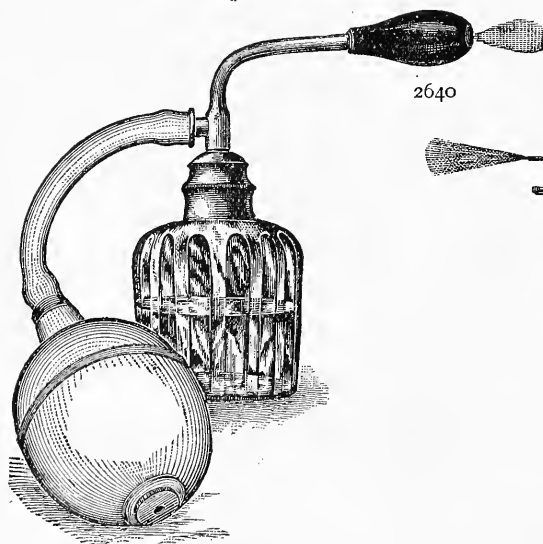
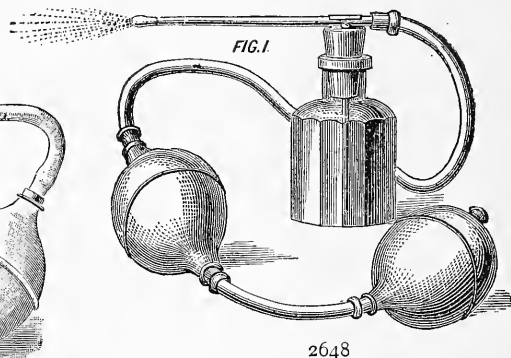
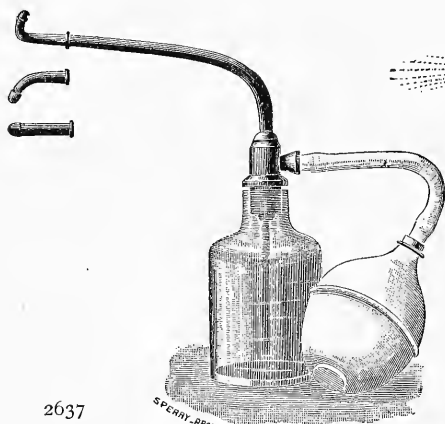


Sharp & Smith.

2646

MOUTH AND THROAT INSTRUMENTS.

FIG.			
*2634	Magic Atomizer, No. 1, single bulb.....		\$1 00
*2635	" " Hard Rubber, No. 5, single bulb.....		1 25
*2636	" " " " No. 25 " "		1 50
*2637	" " " " No. 30 " "		1 50
2638	Mattson's No. 1 Atomizer, single bulb.....		75
2639	" Clinical " "		1 25
*2640	Millard's No. 5 " Throat and Ear, single bulb.....		1 50
*2641	" No. 6 " Larynx, single bulb.....		1 50
*2642	" No. 10 " Throat " "		1 50
2643	Reversible Atomizer, single bulb		2 00
*2644	Richardson's " " "		2 00
2645	Davidson's " " "		2 00
*2646	Shurtleff's " " "		2 60
*2647	Phoenix " one bulb.....		60
*2648	Holmes' " " "		2 60
*2649	S. & S. Freezing Atomizer, one bulb.....		2 60



MOUTH AND THROAT INSTRUMENTS.

FIG.									
*2650	Atomizer	Tips,	Throat,	straight,	Platina	lined,	No. 1.....	\$	40
*2651	"	"	"	curved	"	"	" 2.....		40
*2652	"	"	"	"	"	"	" 3.....		40
*2653	"	"	Nasal	"	"	"	" 4.....		60
2654	"	"	Hall's	"	"	"	.....		60

Tips for all Atomizers furnished at once.

CAPS.



No. 1.
2650



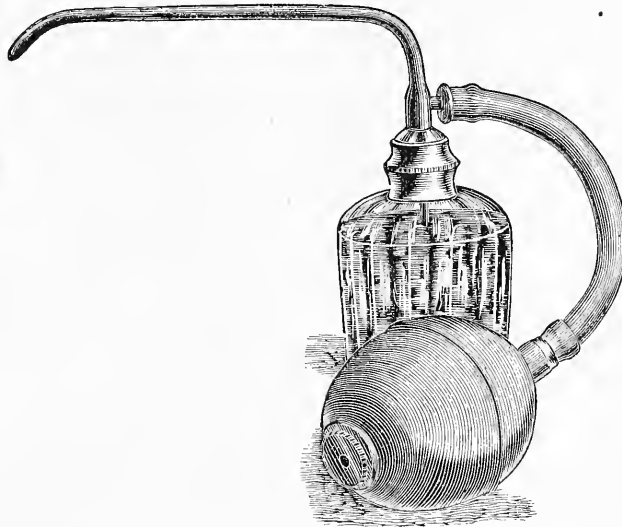
No. 2.
2651



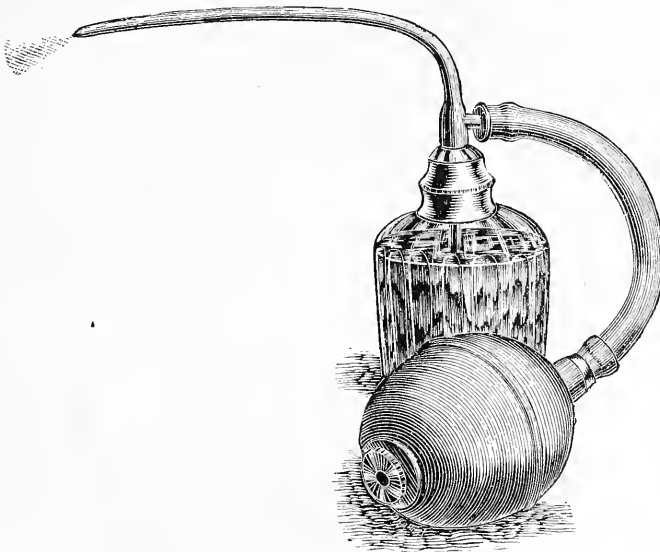
No. 3.
2652



No. 4.
2653



2641



2642

Instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

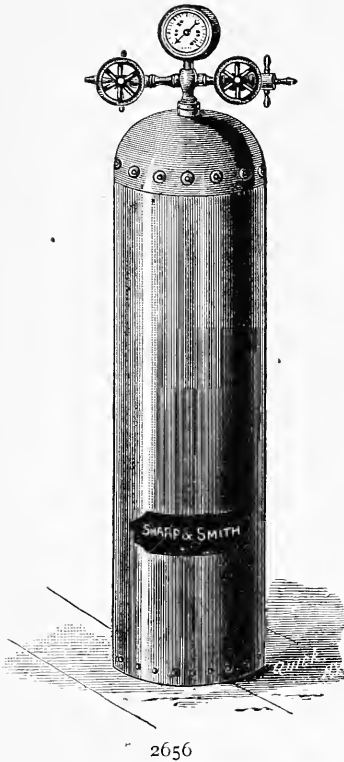


FIG.

- *2655 No. 2 Compressed Air Apparatus, complete..... \$34 50
 *2656 No. 3 Compressed Air Apparatus, complete..... 44 50

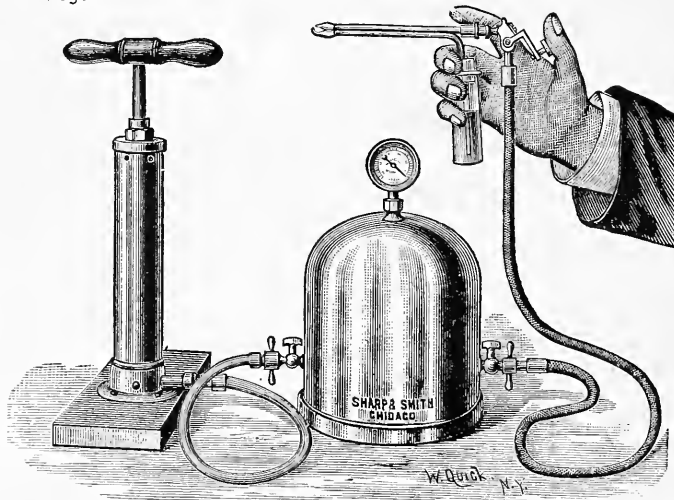
Prices of Fig. 2656 include appurtenances same as in Fig. 2655.

This Receiver is made of copper, and nickel-plated. It is tested to 300 pounds to the square inch, and provided with an A No. 1 gauge, registering from 1 to 100 (or 200) pounds' pressure.

The valves are made so they will not leak at any pressure. The gauge and valves are made of bronze, and plated.

This Receiver stands as high as an ordinary table, and the valves can easily be controlled.

Size, 7 inches diameter by 28 inches high.



2655

This outfit consists of a plated copper Receiver, warranted to be air-tight. Size, 9 inches diameter by 12 inches high.

With first-class gauge, registering from one to fifty pounds' pressure; plated air-pump (latest improved), capable of producing fifty pounds' pressure; automatic cut-off; three Sass' spray tubes, glass; three test tubes; four feet silk-covered rubber tubing, and four feet lined rubber tubing.

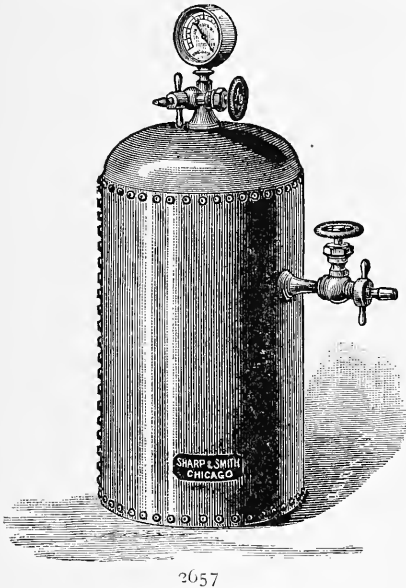
All Air Receivers leaving our place are warranted.

COMPRESSED AIR APPARATUS.

FIG.

*2657	No. 4 Compressed Air Apparatus.....	\$36 50
*2658	" 5 " " " "	41 50

Prices of Figs. 2657 and 2658 include appurtenances, same as in Fig. 2655.



No. 4. This Receiver is made of superior tinned steel, japanned in rich chocolate color, with first-class gauge registering from one to one hundred pounds' pressure, and high-pressure valves warranted not to leak. Also, provided with couplings for attaching the necessary rubber tubing.

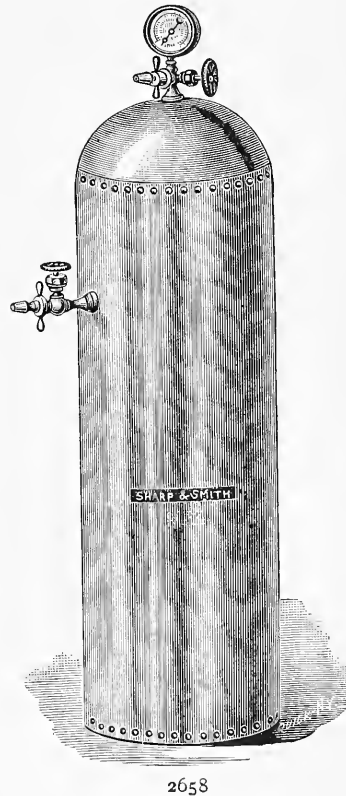
The gauge and valves are made entirely of bronze, highly finished and plated.

Size, 10 inches diameter by 18 inches high.

No. 5. This Receiver is made of superior tinned steel, japanned in rich chocolate color, with first-class gauge registering from one to one hundred pounds' pressure, and latest improved high-pressure valves, warranted not to leak. Also, provided with couplings for attaching the necessary rubber tubing.

The gauge, valves, and couplings are made of bronze, highly finished and plated.

Size, 10 inches diameter by 32 inches high.



MOUTH AND THROAT INSTRUMENTS.

FIG.

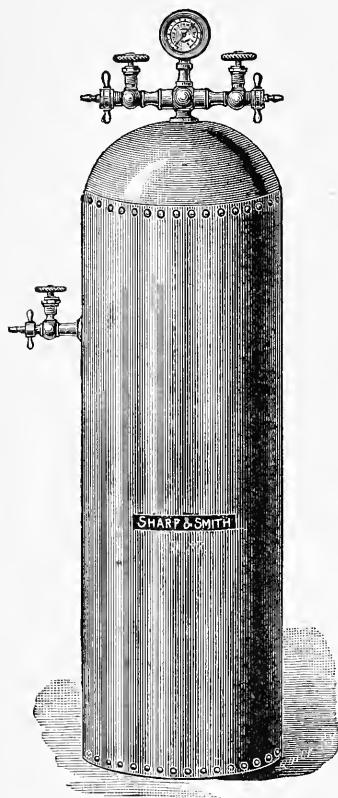
* 2659	No. 6, Condensed Air Apparatus.....	\$42 50
* 2660	No. 7, " " " "	37 50
* 2661	No. 8, " " " "	39 50
2662	Burgess " " " " (tubes extra)	20 00

Prices of figures 2659, 2660 and 2661, include appurtenances same as in figure 2655.

Fig. 2659—No. 6. This Receiver is made of same material and finish as the No. 5, and provided with the latest improved high-pressure valves, warranted not to leak; first class gauge registering from one to one hundred lbs. and couplings for attaching the necessary rubber tubing.

It is designed for use with globe inhaler as well as with ordinary spray tubes.

Size, 10 inch. diameter by 32 inch. high.



2659

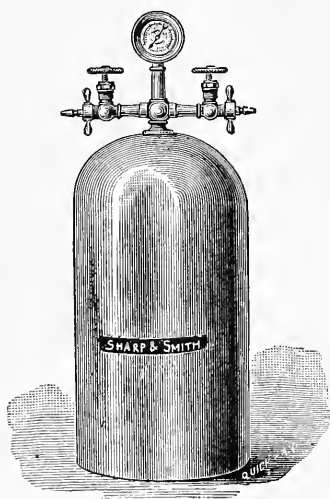


2660

Fig. 2660—No. 7. This Receiver is made of copper, highly finished and plated. With first-class gauge, registering from one to fifty lbs. pressure; two accurately-fitted air cocks, and couplings for attaching the necessary rubber tubing.

The gauge, air-cocks, and couplings are made of bronze, and nickel plated.

Size, 9 inch. diameter by 16 inch. high.



2661

Fig. 2661—No. 8. This Receiver is made of same material and finish as the No. 7, and provided with two latest improved high-pressure valves, warranted not to leak, and couplings for attaching the necessary rubber tubing. The gauge (first quality) registering from one to fifty lbs. pressure.

Size, 9 inch. by 16 inch. high

MOUTH AND THROAT INSTRUMENTS.

FIG.					
No. 3	Air Receiver (only) as described in Fig. 2656	.....	\$27	00	
No. 4	" " " " " 2657	.....	19	00	
No. 5	" " " " " 2658	.....	24	00	
No. 6	" " " " " 2659	.....	25	00	
No. 7	" " " " " 2660	.....	20	00	
No. 8	" " " " " 2661	.....	22	00	

FIG.

PARTS OF CONDENSED AIR APPARATUS.

*2663	Automatic Cut off (cut off only)	.....	\$	3	00
*2664	Devilbiss' Automatic Cut off	.....		
*2664-A	Rumbold's " " "	.....		
*2665	Sass' Spray Tubes, Glass mounted	..... each	1	00	
2666	" " " Metal "	..... "	1	50	
2667	" " " Hard rubber mounted	..... "	2	00	
2665-A	" " " Glass, not	..... "	80		
2666-A	" " " Metal "	..... "	1	25	
2667-A	" " " Hard rubber not mounted	..... "	1	75	
*2667-B	Holmes' Spray Tubes	..... "	1	85	
	Devilbiss' " " Metal for Vaseline (see index)	.....		
	Mounted	..... each	2	00	
*2668	Hanks' Spray Tubes, Glass 3 sizes, not mounted	.....	85		
	Rumbold's Spray Tubes (see pages 499 and 500)	.....		
2668-A	(As in Fig. 2663) Spray Tube bottle with cork	.....	25		
2669	Thimbles for Spray Tubes	.....	30		
2670	Silk Covered Rubber Tubing	..... per foot	50		
2671	Lined " "	..... " "	18		
2672	Plated Air Pumps (T Handle) latest improved (same as in Fig. 2655)	.....	8	00	
2673	Black Walnut Stand to hold six spray tubes	.....	2	00	
2674	Hard Rubber Atomizer Stand, mounted on nickel-plated pillars, to hold nine sprays	.....	10	00	
2674-A	Pressure Gauge 2½ inches, including fitting for Receiver, made of bronze and nickel-plated	.....	6	00	



THE DEVILBISS

AUTOMATIC CUT-OFF.

The figure shows it in its working position. The dotted lines show the pressure-foot carried backward, permitting free passage of air. The part to connect with spray tube is constructed so it will fit to any fastening in use direct, or with short piece of rubber tube. There is with each Cut-off a coupling so that a piece of uncovered rubber tubing may be connected by one end to the tube leading from air receiver, and the other end slipped over the heel-piece of Cut-off.

MOUTH AND THROAT INSTRUMENTS.

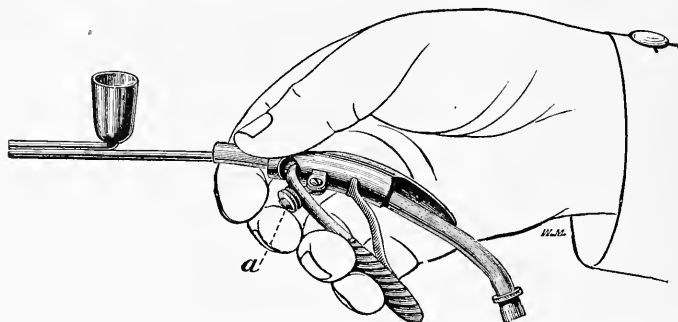
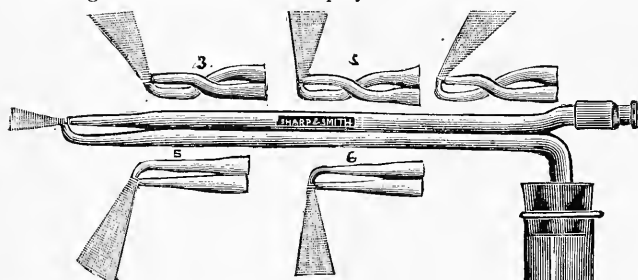
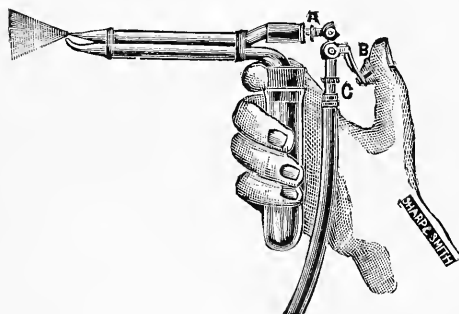


Figure 2664-a. Rumbold's Spray Controller. *a*, set-screw, to control the pressure on the rubber tube connected with the compressed air reservoir. The illustration shows the manner of holding the instrument. The Spray Controller is thus made the handle of the Spray Producer.



2665



2663

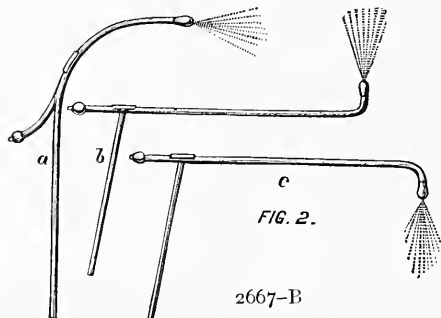
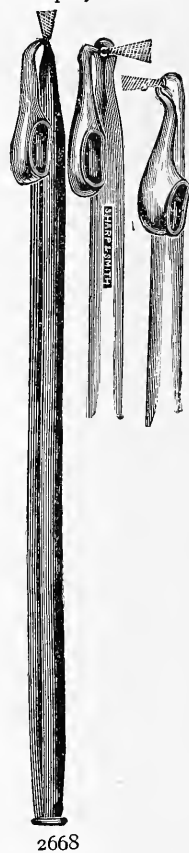


FIG. 2.

2667-B



2668

MOUTH AND THROAT INSTRUMENTS.

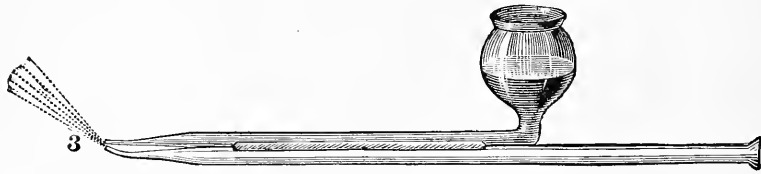


Figure 2679, Spray Producer No. 3. This instrument is used to cleanse the posterior wall of the pharyngo-nasal cavity, when it is coated with a heavy, thick secretion that cannot be removed by the No. 4 spray producer.

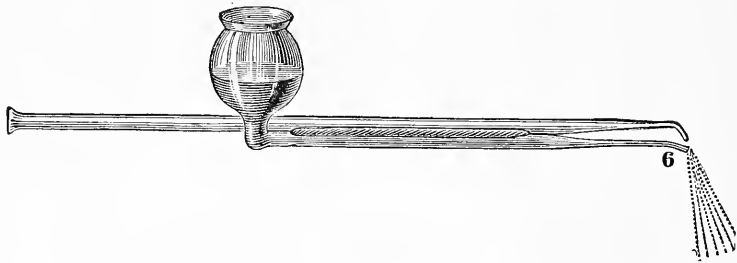


Figure 2680, Spray Producer No. 6. This instrument is used to make applications to ulcerated surfaces on the posterior wall of the pharynx, and posterior wall of the epiglottis.

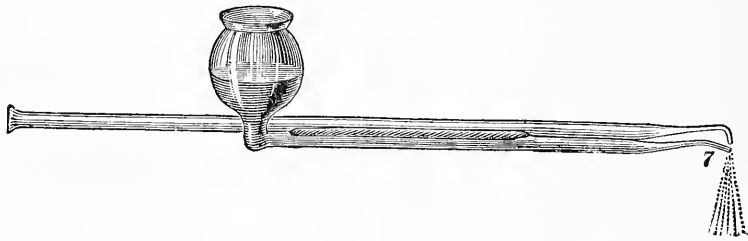


Figure 2681, Spray Producer No. 7. This instrument is used to make local applications to ulcerated surfaces located on the superior border of the epiglottis, the ary-epiglottic folds, arytenoid processes, and vocal cords.

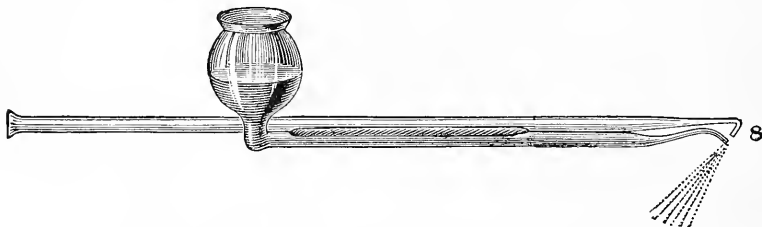
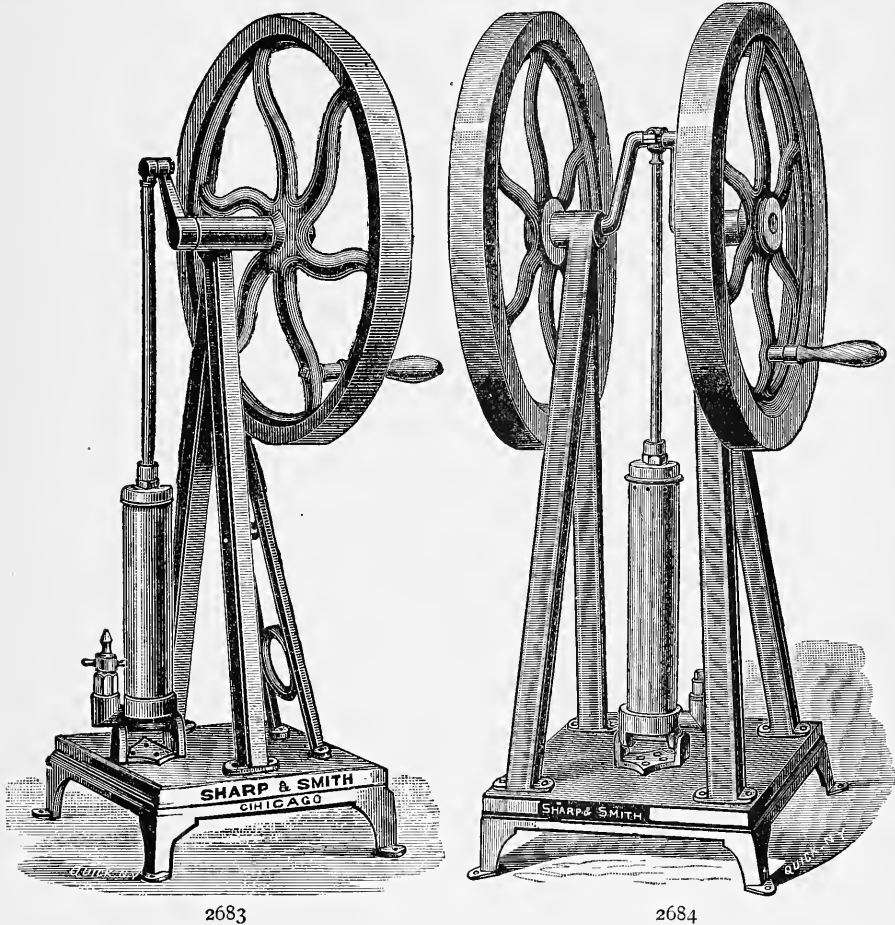


Figure 2682, Spray Producer, No. 8. This instrument is used to make applications to ulcerated surfaces that cannot be reached by Nos. 6 and 7.

MOUTH AND THROAT INSTRUMENTS.

FIG.

*2683	No. 9.	Novelty Air Pump.....	\$35 00
*2684	" 10.	" " " " two wheel.....	50 00



2683

2684

Fig. 2683.—This cut represents the well-known NOVELTY AIR PUMP, designed for exhausting as well as compressing air for atomizing purposes, and for compressing oxygen.

The construction of the pump is such that a pressure of one hundred pounds to the square inch can be obtained with comparatively little effort. The fly-wheel, frame part, and base are nicely japanned in black and ornamented in bronze, and all bright parts highly finished and plated - making this pump especially adapted for the office.

Height of pump from floor to top of wheel, 40 inch.; size of base, 14 by 14 inch.; diameter of wheel, 20 inch.; diameter of chamber, 2 by 6½ inch. stroke; weight of pump, 90 pounds.

Fig. 2684.—This cut represents the two-wheel NOVELTY PUMP, of same material and finish as the Fig. 2683 NOVELTY, but considerably heavier in construction, and designed for compressing air or gas into Receivers of extra large sizes.

Height of pump from floor to top of wheel, 43½ inch.; size of base, 14 by 14 inch.; diameter of wheels, 20½ inch.; diameter of chamber, 2 inch. by 8 inch. stroke; weight of entire pump, 150 pounds.

Instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

- FIG.
 *2685 Dr. N. L. McBride's Inhaling Apparatus complete as shown in cut, with Novelty Air Pump, and Figure 2658 No. 5 Air Receiver 10x32 inch.....\$67 00
 2686 Dr. N. L. McBride's Inhaling Apparatus only.....8 00

This apparatus can be had by itself or in connection with any of our air condensers or pumps.

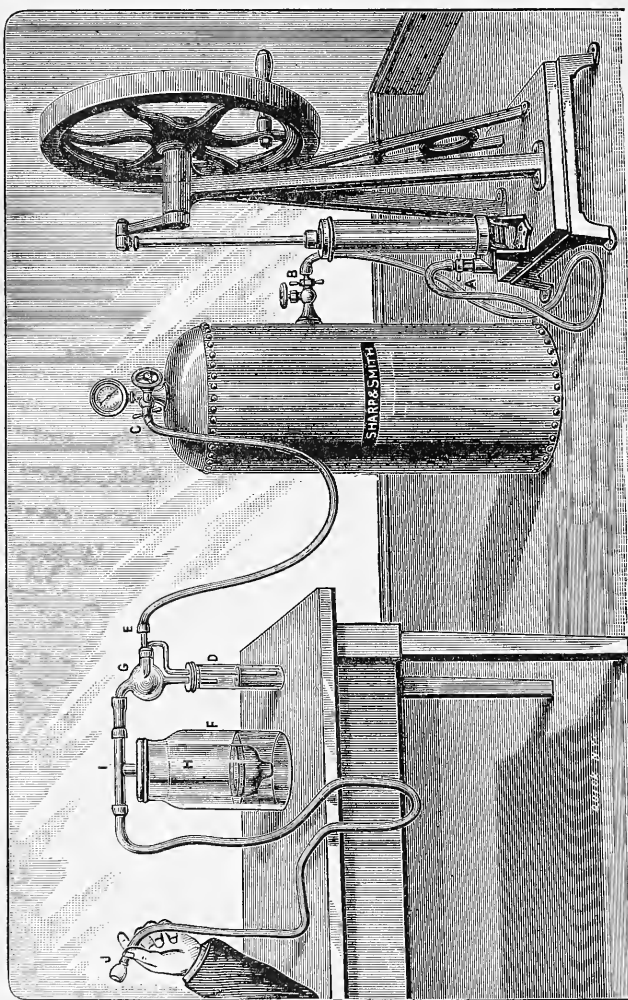


Fig. 2685.—INHALING APPARATUS.

For administering Vaporized Medicine in the treatment of Throat and Lung difficulties, as designed by Dr. N. L. McBride, New York. Shown in connection with the celebrated Novelty Air Pump and No. 5 Air Receiver, 10 by 32 inches.

Each Inhaler is provided with the necessary rubber tubing, (3 1/2 feet) and one hard rubber mouthpiece. Glass tube *D* to contain the liquid to be vaporized; glass jar *F* to be half filled with clear water.

All of our Air Condensing apparatus, etc., are thoroughly reliable, and are guaranteed by us as represented. We pack them carefully, and would suggest in ordering, to have them sent by freight.

New Apparatuses for Atomization with Compressed Air.

Designed to combine efficiently all the advantages of an office and of a Portable Apparatus for Physicians' use.

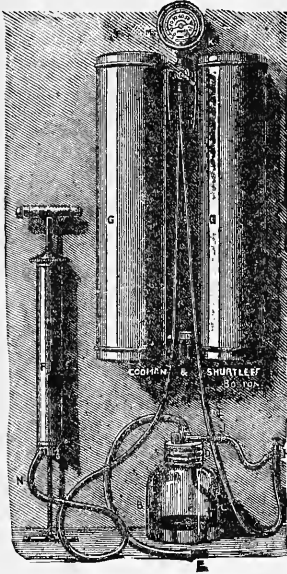


Fig. 2687. No. 266.

nickel plated.

*2687 No. 266, with Wall Brackets, or with Portable Case.....\$20 25

2687 No. 268, " " " " " " 19 50

For both the Wall Brackets and the Portable Case, add..... 1 50

For further details and description relating to Oliver's Vaporizing and Compressed Air Atomizer, also to pump and cut-off which accompany this apparatus, and for a great variety of Atomizing Tubes adapted to use with these apparatuses and fitting the cut-off, see our pamphlet on Atomization of Liquids, which will be mailed on request.

*2688 No. 166. Dr. Oliver's Atomizing Apparatus, with Platinum Plated Atomizing Tube and Platinum Nozzles.....\$10 50

2688 No. 168. Same as above, with Nickel Plated Atomizing Tube and Platinum Nozzles..... 9 75

*2689 No. 165. Dr. Oliver's Vaporizer, with Platinum Plated Atomizing Tube and Platinum Nozzles... 3 00

2689 No. 167. Same as above, but with Nickel Plated Atomizing Tube and Platinum Nozzles..... 2 25

*2689-A Sharp & Smith's Air Receiver, 20 inches high, with Pressure Gauge, 3 Sass' Glass Tubes and Bottles, has 3 Metal Clasps on top of Cylinder fastened to back of Gauge for holding the Tubes. Price of apparatus complete with Pump..... 40 00

For attaching the Air Chamber of the Nos. 266 or 268 to the office wall we make Plated Metal Brackets designed to remain screwed to the wall. From these the apparatus may be readily detached and placed in case for portable use, and on return as quickly replaced upon them, as shown in cut.

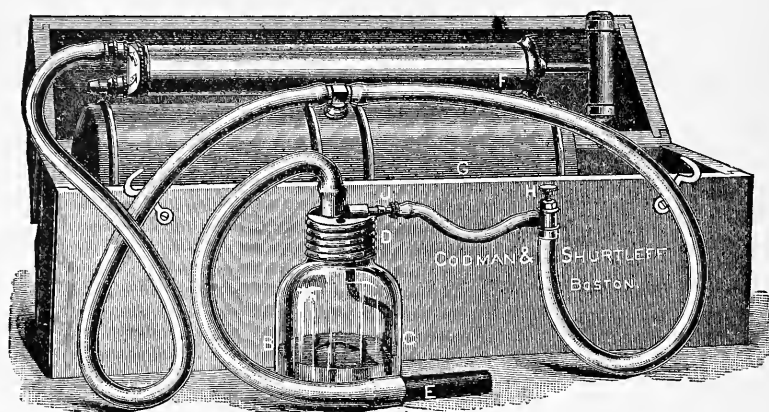
The Portable Case is 23 inches long, 10½ inches wide, 7 inches high. It has a separate compartment for safe carriage of the Oliver Jar, also a spare compartment for a second Oliver Jar or for other use. It is neatly made, with hinged top and brass handle.

Each apparatus tested to more than 100 lbs. per square inch, and warranted perfect.

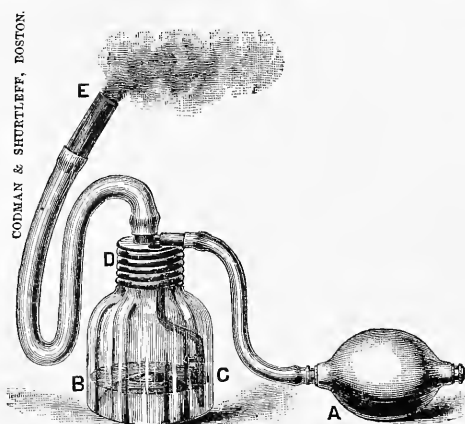
PRICES, PACKED FOR TRANSPORTATION.

The apparatus as described, including the Air Chamber, the 2½ inch Pressure Gauge, the Pump, the Cut-off, the Oliver Jar, a sufficient amount of strong, serviceable Tubing, with screw couplings and wrench, and either the Portable Case or the Wall Brackets, at the option of purchaser; all metal parts handsomely polished and

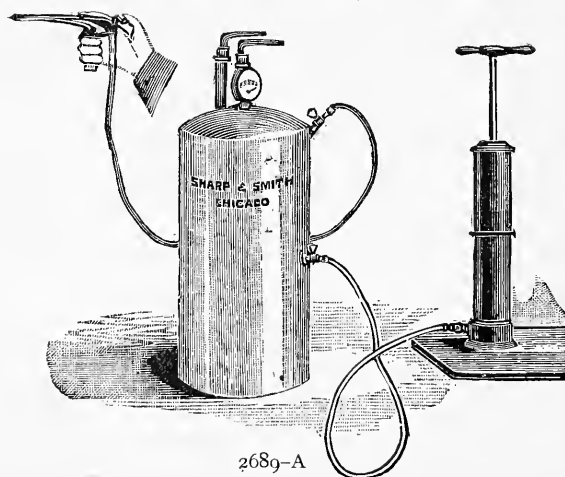
MOUTH AND THROAT INSTRUMENTS.



2688 (No. 166.)



2689 (No. 165.)

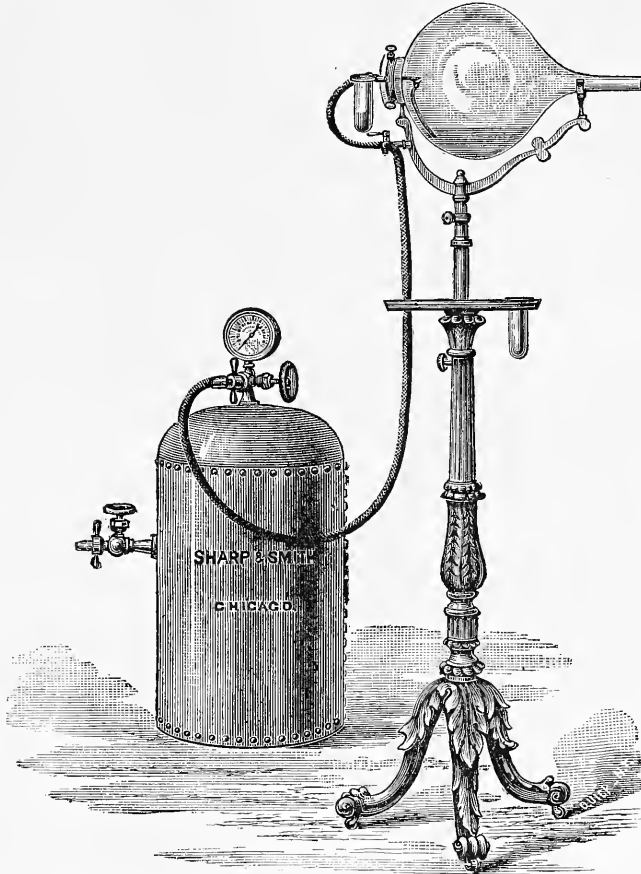


2689-A

MOUTH AND THROAT INSTRUMENTS.

FIG.

*2690	Globe Inhaler on Stand (without receiver shown in cut).....	\$30 00
2691	“ “ only.....	3 00
2692	“ “ with trimmings.....	12 00
2693	“ “ “ “ and bracket.....	20 00



2690

This instrument consists of a glass vessel, 9 inches diameter by 12 inches long, one end being provided with a metal cap with a spray tube attached, reaching about two inches into the globe. The liquid to be vaporized can be taken from the globe, or from a test tube attached to the frame.

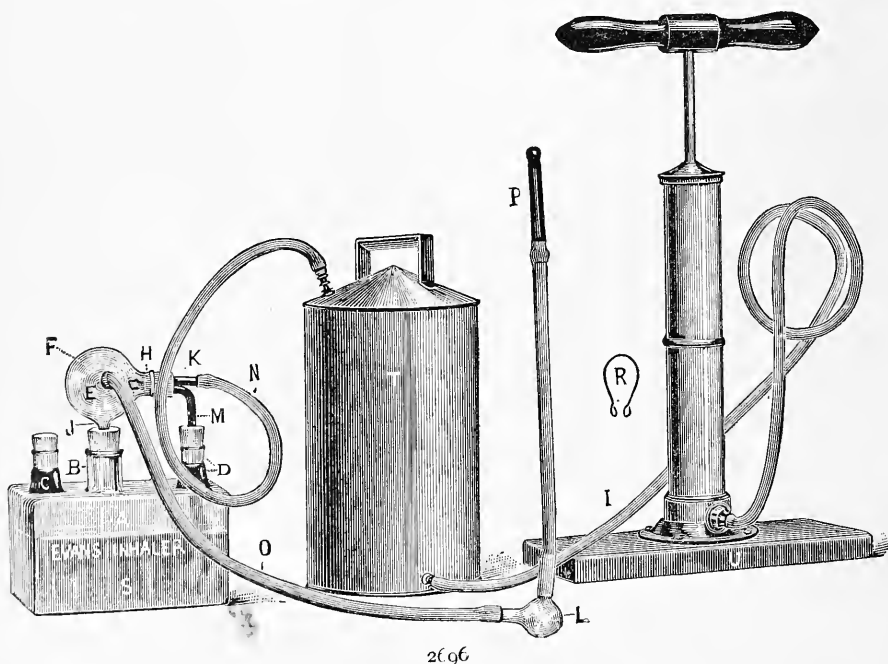
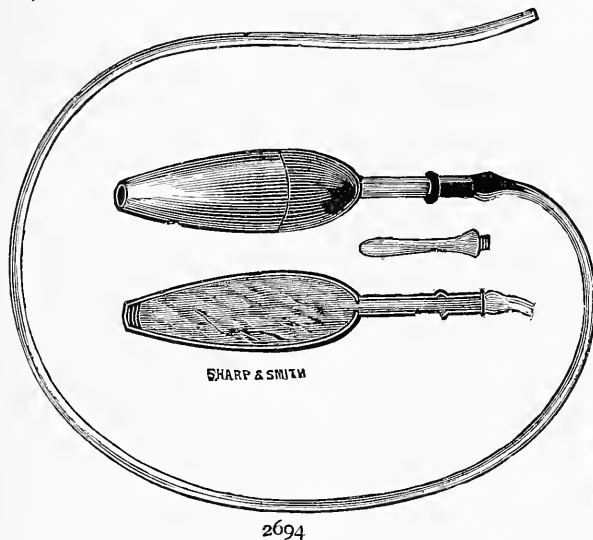
The instrument can be adjusted to the height of the patient.

The iron table stand is nicely ornamented in black and gilt, and the other metal parts are highly finished and plated.

Price of Inhaler, without Receiver, \$30.00. Two mouthpieces and six feet of silk covered tubing are furnished with each instrument.

MOUTH AND THROAT INSTRUMENTS.

FIG.			
*2694	Buttles' Inhaler, complete.....	\$	1 00
2695	Cutter's " ".....		1 00
*2696	Evans' " ".....	20	00
2697	" Spray Chamber and Inhaling Tube.....	8	50
2698	" Receiver alone.....	2	50
2699	" Pump ".....	8	00
2700	" Connections.....	1	00
2701	Brewster's Inhaler.....		60
*2702	Barber's ".....	3	00

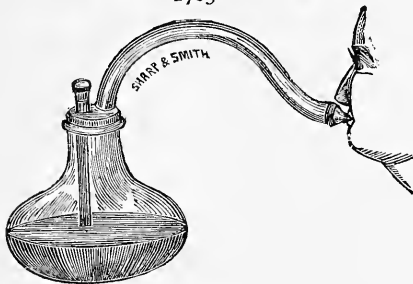


MOUTH AND THROAT INSTRUMENTS.

FIG			
*2703	Brady's Inhaler.....	\$	75
2704	Fulgraff's ".....		50
*2705	Hunter's ".....		85
2706	Schofield's ".....	2	25
2707	Kirkwood's Large Inhaler.....	3	75
2707-A	" Small ".....	1	85
2708	Crumb's Inhaler.....	1	00
2709	Vilas' ".....	1	75
2710	Oliver's Tar ".....		75
2711	Fitch's Hard Rubber Inhaler.....		75
2712	Roosa's Iodine " two tips.....	1	50
2713	Gedding's ".....	4	00
2714	Hazen's ".....	2	25
2715	Hutchinson's ".....	3	50
2716	Laforme's ".....		60
2717	Ramage's ".....		60
*2718	Semple's ".....	3	00
2719	Stafford's ".....		75
2720	Delano's ".....		85



2703



2705

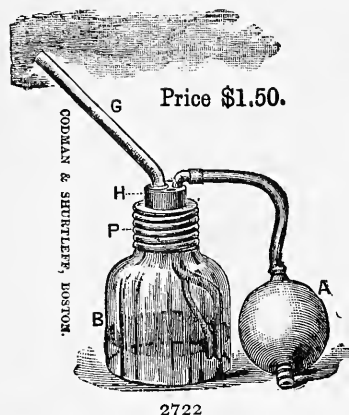


2718

All instruments designated by a * are illustrated.

MOUTH AND THROAT INSTRUMENTS.

FIG.		To Patients.	To Physicians.
*2721	American Nebulizer.....	\$3 00	\$2 00
*2722	Oliver's ".....	2 00	1 50



In this Vaporizing or Nebulizing Apparatus, based upon the invention of Dr. Henry K. Oliver, the medicine, when suitably constituted by the addition of glycerine or other vehicle, is first atomized and then further broken into a fine cloud by striking against a hard surface. Issuing from the inhaling tube it floats upon the atmosphere for a long time without being absorbed into it. Possessing this quality, it is admirably adapted to be received by the air-cells of the lungs, into which it surely penetrates, as abundantly proved by careful observers.

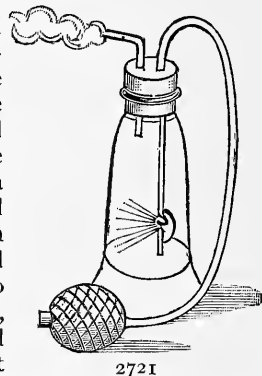
To use it, take the rubber bulb in the hand, compress it strongly, let it expand quickly and continue this as rapidly as convenient, and air charged with fine vapor of the medicament will

issue from the inhaling tube G.

In affections of the lungs and bronchial tubes, take this tube well into the mouth, close the lips and inhale the vapor with long, deep inspirations, holding the breath as long as can be done without inconvenience, and then allow it to pass out slowly through the nose. The bulb being worked continuously, the small hole in the rubber stopper being closed by the finger while breathing outward, the inspired vapor of the medicament will pass into the lungs and then outward through the pharyngeal vault and both nostrils, and will thus be brought in contact with the entire respiratory tract. For catarrh, coughs and colds, in addition to the foregoing, insert the inhaling tube a short distance into each nostril by turns, close the mouth and work the bulb while holding the finger over the small hole in the stopper. The vapor will now pass through one nostril into the deeper cavities of the nose and out at the other nostril.

A number of valuable recipes with suggestions for their appropriate use, obtained from high medical authority, will be supplied with each.

This ingenious little apparatus converts liquid remedies into a nebula or vapor so very fine that it remains suspended in the air like smoke, and can be inhaled and retained within the lungs as readily as the air we breathe, or can be introduced into the nasal passages without the slightest discomfort. Nor is the substance thus inhaled a mere gas or the odor of a medicine, but the actual medicine itself in its full remedial potency. Much good was expected from atomization, but it failed because the atomized liquid condenses in the throat, and never finds its way into the lower air passages. This is entirely different, however, with this new method, for the remedy selected penetrates to the very air cells of the lungs to the most remote cavity of the head, or to the middle ear, as may be desired—a fact which a single application will conclusively demonstrate. Every nebulizer is accompanied by valuable recipes for the cure of the various diseases named above, gathered from the practice of well known specialists of established reputation. Your druggist can prepare the remedies.

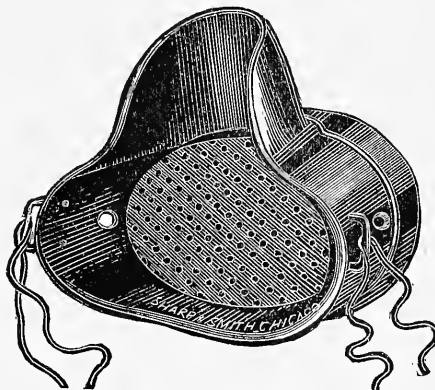
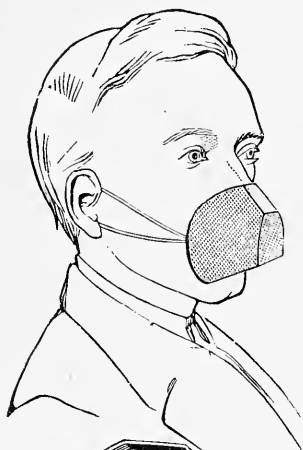


MOUTH AND THROAT INSTRUMENTS.

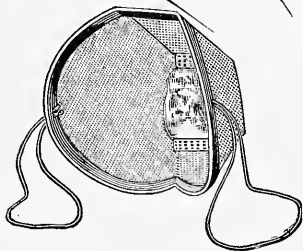
FIG.			
*2723	Plain Mouth Respirator.....	75	
*2724	Mouth and Nose Respirator.	1 50	
2725	Nitz' Mouth and Nose Respirator	1 50	
*2726	Anti-Dust "	1 80	
*2727	Tyndale's "	2 60	
*2728	Robinson's "	50	



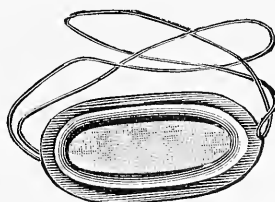
2724

CODMAN & SHURTLEFF,
BOSTON.
2726

2727.



2728



2723

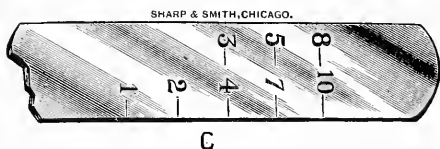
Instruments designated by a * are illustrated.

INTUBATION APPARATUS.

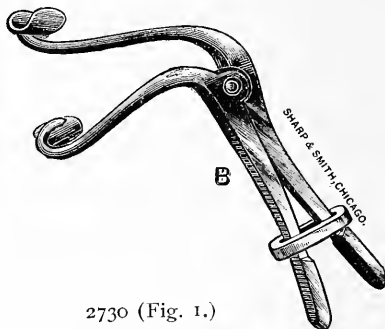
Fig. 2729 O'Dwyer's Intubation Set, complete.....\$25 00

Comprising:

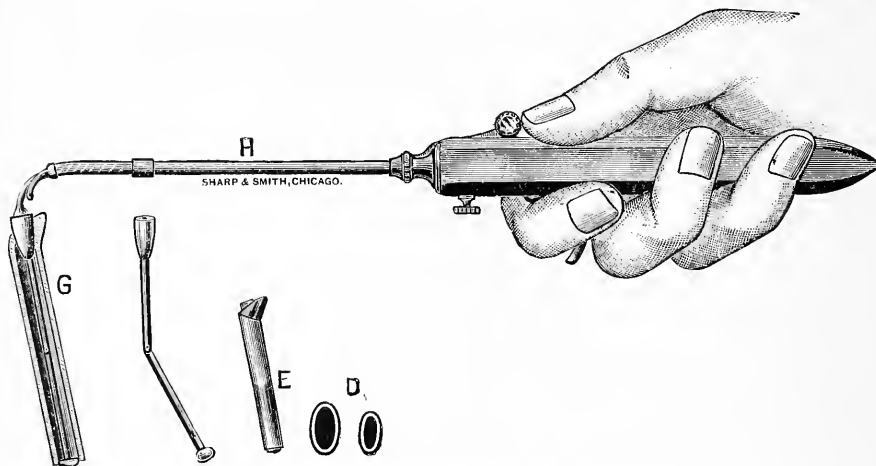
- *2730 Fig. 1. O'Dwyer's Mouth Gag.
- *2731 " 2. " Tube Introducer.
- *2732 " 2-G " Tubes with Obturator.
- *2733 " 3. " Scale for measuring the Tubes to assist in the selection of proper size.
- *2734 " 4. " Extracting Forceps.



2733 (Fig. 3.)

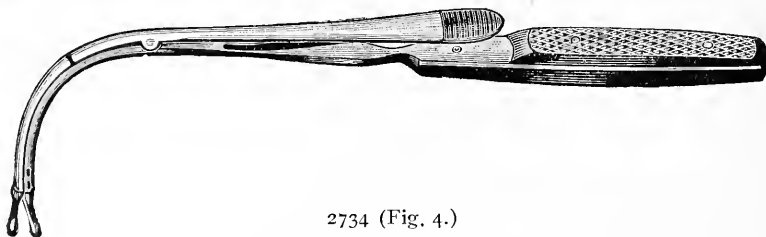


2730 (Fig. 1.)



2732 (Fig. 2-G.)

2731 (Fig. 2.)



2734 (Fig. 4.)

The numbers on the scale (Fig. 3) indicate the years for which the corresponding tubes are suitable. For instance, the smallest tubes when applied to the scale will reach to the first line, marked 1, and is intended to be used up to

the age of twelve or thirteen months; the size marked 2 is suitable for the next year, 3 and 4 for these years, and so on. When the proper tube is selected for the case to be operated on, a fine thread is passed through the small hole near its anterior angle, and left long enough to hang out of the mouth; its object being to remove the tube should it be found to have passed into the œsophagus instead of the larynx.

The obturator is then screwed tightly to the introducer, to prevent the possibility of its rotating while being inserted and passed into the tube.

The following is the *method of introducing the tube*, which is done without the use of an anæsthetic. The child is held upright in the arms of a nurse, and the gag (Fig. 1) inserted in the left angle of the mouth, well back between the teeth, and opened widely; an assistant holds the head, thrown somewhat backward, while the operator inserts the index finger of the left hand to elevate the epiglottis and direct the tube into the larynx.

The handle of the introducer (Fig. 2) is held close to the patient's chest in the beginning of the operation, and rapidly elevated as the canula approaches the glottis. The tube is then pushed downward without using much force. It is then detached. The joint in the shank of obturator is for the purpose of facilitating this part of the operation. As soon as the obturator is removed, and it is ascertained that the tube is in the larynx, the thread is withdrawn, but at the same time the finger is kept in contact with the tube to prevent its being also withdrawn.

It is important that the attempt at introduction be made quickly, as respiration is practically suspended from the time that the finger enters the larynx until the obturator is removed. It is therefore, under the circumstances, much safer to make several abortive attempts than one prolonged effort, even if successful.

For the purpose of removal the patient is held in a similar position, except that the head is not inclined backward, or very slightly so, and the extractor passed into the tube guided by the index finger of the left hand, which also fixes the epiglottis, and is brought in contact with the head of the canula. Firm pressure with the thumb is then made on the lever above the handle while the tube is being withdrawn. If secondary dyspnoea supervenes at any time, the tube should be removed, and a larger one substituted. To avoid accidents it is very essential to have some preliminary practice on the cadaver, particularly in extracting, which is the more difficult operation, owing to the aperture of the tube being so much smaller than that of the larynx. These tubes will also prove valuable as dilators in chronic stenosis of the larynx or trachea.

Parties wishing our instruments, and finding it more convenient to obtain them through dealers, are requested to order "**S. & S. manufacture**," as otherwise inferior goods are frequently substituted. All instruments of our manufacture have our name on them, which is a guarantee of the quality.

SHARP & SMITH,

Manufacturers of Surgical Instruments,

73 Randolph Street, Chicago.

INTUBATION SETS.

FIG.

2735 Waxham's Intubation set.....\$27 50

Comprising:

- 1 O'Dwyer's Tube Introducer (2731—Fig. 2).
- 1 " " Extractor (2734—Fig. 4).
- 1 " " Scale (2733—Fig. 3).
- 1 Waxham's Gag.
- 1 Pair Waxham's Trachea Forceps.
- 1 " " Respirator.
- 5 " " Tubes, with Epiglottis and Intubators.

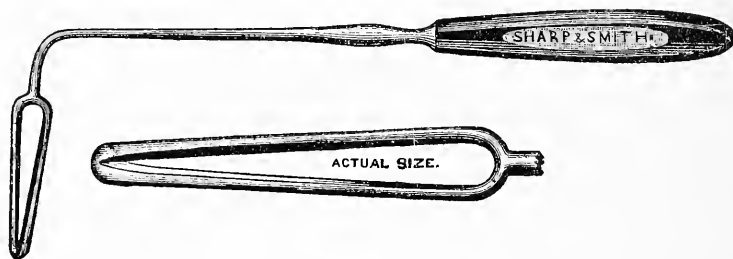
*2736 O'Dwyer's Instrument for Intubation in Chronic Stenosis of the Larynx..... 2 50

Extract from an article entitled

"INTUBATION IN CHRONIC STENOSIS OF THE LARYNX."

BY JOSEPH O'DWYER, M. D.

* * I have also devised a snare (Fig. 2736) for the removal of laryngeal growths, particularly when situated in the subglottic region, where it is difficult to reach them with forceps in adults, and impossible in children. For growths attached to the lateral aspects of the larynx the snare is passed far enough down to give room for the neoplasm to slip between the blades, when it is



2736

pressed firmly against the side of the larynx, and withdrawn. If the seat of attachment is unknown, both sides, and then the anterior and posterior portions of the glottis, can be curetted in succession.

This instrument will not seize any of the normal tissues when applied laterally, but in removing it, when used antero-posteriorly, it is necessary to protect the epiglottis and uvula with the finger. Two sizes of this snare are necessary, that shown in the cut being suitable for children. In young subjects it is guided into the larynx in the same manner as in practicing intubation. In adults it can be inserted with greater facility by the aid of the mirror.

All Instruments designated by a * are illustrated.

INTUBATION.

FIG.

2737 Dr. J. Tascher's Intubation Set.....\$27 50

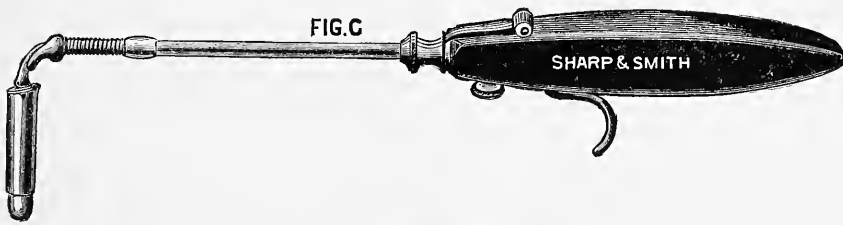
Comprising:

1 O'Dwyer's Tube Introducer (2737)—Fig. C).

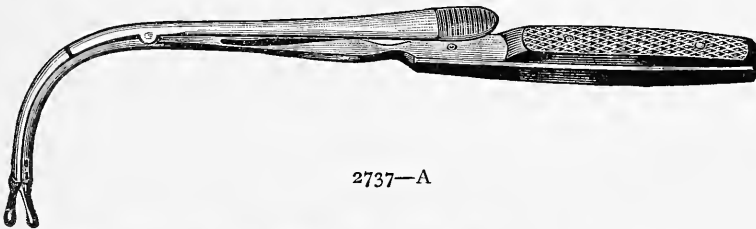
1 " " Extractor (2734—Fig. A).

1 " Scale (2733—Fig. 3).

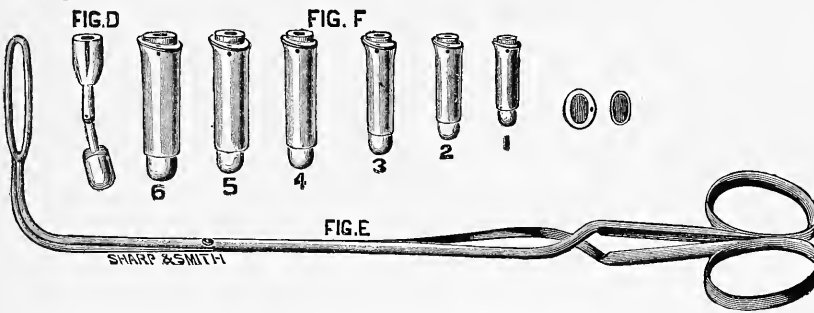
1 " Gag (2737—Fig. B).

6 TASCHER'S TUBES, with Epiglottis (2738—Fig. F), and one pair
TASCHER'S Throat Forceps (2738—Fig. E.)

2737—C

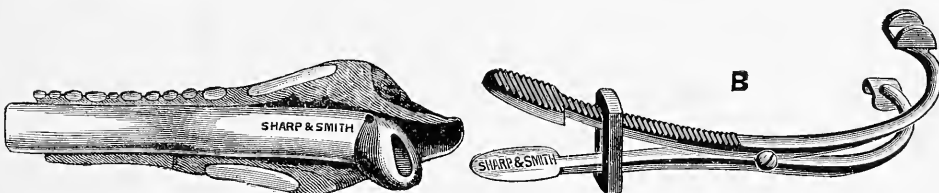


2737—A



2738—D, E and F.

Fig. D in above cut represents the false Epiglottis used in the introduction of each tube.



Cut Showing the O'Dwyer Tube in Position.

2737—B

INTUBATION.

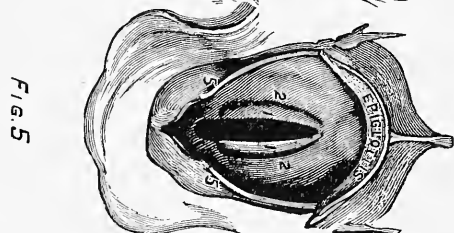
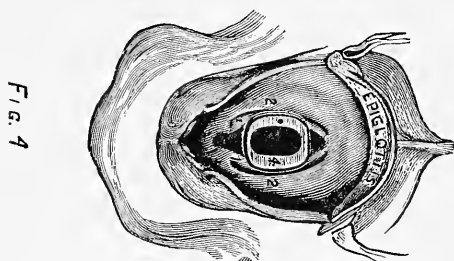
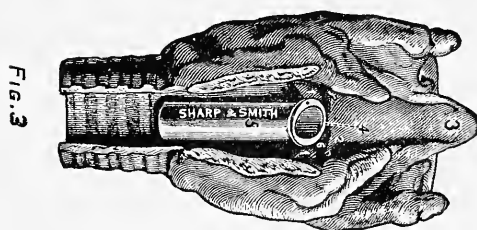
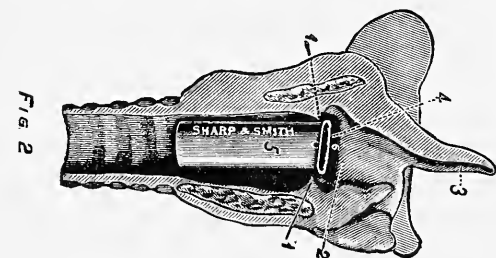
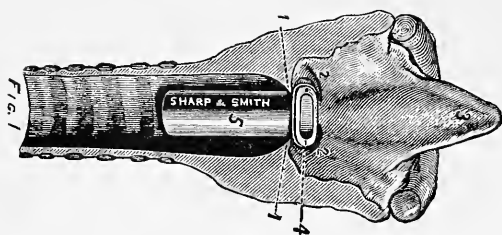


Fig. 1 represents the anterior portion of a transverse section of the larynx, showing the head resting in the ventricle of the larynx; No. 1, the true vocal cords as they grasp the body of the tube beneath the flange; No. 2, the false vocal cords resting above the flange; No. 3 the epiglottis; No. 4 the head of the tube; No. 5, the body; No. 6 ventricle.

Fig. 2 represents an antero-posterior section of the larynx, giving a side view of the position of the tube in the larynx. No. 1, true vocal cords; No. 2, false vocal cords; No. 3, epiglottis; No. 4, head of the tube; No. 5, body of the tube; No. 6, ventricle.

Fig. 3 represents the larynx slit open posteriorly, with tube in position. No. 1, true vocal cords; No. 2, false vocal cords; No. 3, epiglottis; No. 4, head of tube situated in ventricle; No. 5, body of the tube; No. 6, ventricle.

Fig. 5 represents the larynx as viewed through the epiglottid aperture, showing the position of the true vocal cords, without tube.

Fig. 4, same view with tube in position.

For a Complete Description of Dr. Tascher's Method of Intubation, see "Supplement."

MOUTH AND THROAT INSTRUMENTS.

FIG.

*2739	Dr. J. Mount Bleyer's Tongue Tractor.....	\$4 50
*2740	“ Mouth Gag.....	5 00
*2741	“ Cupped and False Epiglottis Tube.....	3 00

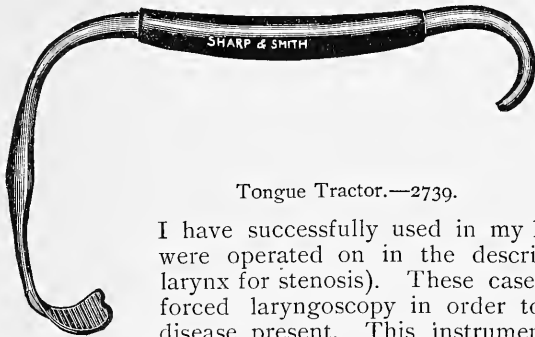
TONGUE AND LARYNX TRACTOR

For the Performance of Forced Laryngoscopy in Children. Mouth-Gag and Cupped-Out Intubation-Tube, with False Metal Epiglottis Attachment.

BY J. MOUNT BLEYER, M. D., New York.

Among the methods of examination which are at our disposal for the recognition of laryngeal disease in children, laryngoscopy takes the first place, and the results which are thus attained are of such great importance in diagnosis that I was led to devise some means which would assist in such a procedure. It is extremely difficult, by a mere verbal description, to explain clearly

any process requiring the use of an instrument and skill. In such cases a single practical demonstration is of more value than a dozen pages of written directions.



Tongue Tractor.—2739.

This tongue and larynx tractor, which is represented in the accompanying illustration,

I have successfully used in my last three hundred cases, which were operated on in the described manner (intubation of the larynx for stenosis). These cases were previously examined by forced laryngoscopy in order to ascertain the extent of the disease present. This instrument was found to facilitate the examination necessary in the majority of cases of acute laryngeal disease in children under four years of age. Such procedure is not to be underrated in importance, nor neglected on account of any personal disinclination to undergo the necessary trouble involved in making it. If such an inspection will disclose facts of diagnostic importance, surely it will not be neglected by any earnest physician.

Suggestions for Operating with the Tongue and Larynx Tractor.

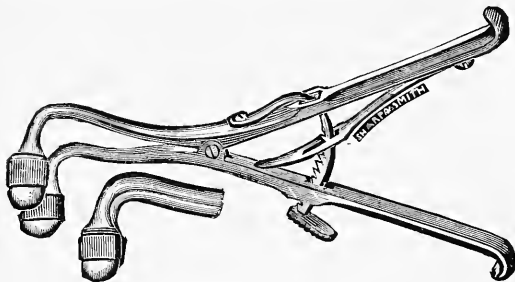
The patient is to be placed upon the lap of a nurse, who is directed to hold the child in an upright posture, facing the operator, the feet being most conveniently held between the knees of the nurse. With a towel envelop the body and arms, which are thus to be pinned securely. The gag is now inserted. At this stage of the operation a five per cent. solution of cocaine, with which the pharyngeal and laryngeal surfaces are to be thoroughly sprayed, or without any use of cocaine, as I often do when the examination is of short duration, the operator passes the tractor down, and secures the base of the tongue, guided upon the forefinger of his left hand. Then drawing upon the base of the tongue, which favors partial elevation of the larynx, the tractor is to be passed upward, outward and downward.

Enforced laryngoscopic examination in children is performed in the above described manner, and there is no doubt that many advantages are thereby gained. Often a very common difficulty is met with in the position of the epiglottis, as more or less depressed, overhanging the larynx, or compressed and rolled together at its sides. By forcing and steadying the epiglottis against the base of the tongue this difficulty is nearly obviated, and a thorough view of the larynx and neighboring parts may be viewed and treated.

TONGUE AND LARYNX TRACTOR.—Continued.

Other important advantages of this instrument are that where there might occur some difficulty in extracting a tube after intubation, extraction is performed after elevation of the larynx with any ordinary forceps.

The mouth gag, which is herein represented, will be found to have superior qualities in its construction in many points. I have found that all other gags are very troublesome to introduce into the mouth of the child, on



Mouth-Gag.—2740.

account of the shoulders of the alveolar processes of the gagger, which are very large, and especially when one has to deal with a stubborn patient, who will not begin to open his mouth. This led me to have a wedge attachment made to the side of the alveolar process, and very low shoulders, in order to help to open the mouth and thereby slip immediately the gag in between the angles of the jaw. The alveolars of the gag are padded with soft rubber, and which can be changed in every case; thus no damage is done to the teeth, and where no teeth exist the gums are protected thereby. The shoulders are very low, so that while the gag is in position it will not press upon the hard palate and crush in the same, as I often had experienced. Slipping of the gag is avoided by the anatomical construction of the angles of the gag; also the soft rubber padding keeping it in place by the indentation of the teeth.

The separating of the jaws by the gag can be accomplished to any degree and with ease. Also it lies flat upon the cheek, and is self-retaining.

To Dr. Charles E. Denhard of New York, I must credit the principle of this gag.

Dr. J. Mount Bleyer's Cupped and False Epiglottis Tube.

The tube is an improvement upon the soft rubber false epiglottis of Dr. T. E. Waxham of Chicago, to whom all honors should be given for this ingenious idea. When one has operated many cases he begins to see the necessary wants and deficiencies which exist. These tubes have many advantages over the first tubes of Dr. O'Dwyer. They are cupped out at the head, and admit of the extractor engaging itself into the tube, and thereby the extraction made easy.

A metal-hinged artificial epiglottis, which is intended to assist the patient in swallowing, to prevent the falling of foods and fluids through the canula into the bronchi, and to guard against the dangers of broncho-pneumonia.

Since the use of these tubes I have had better results.

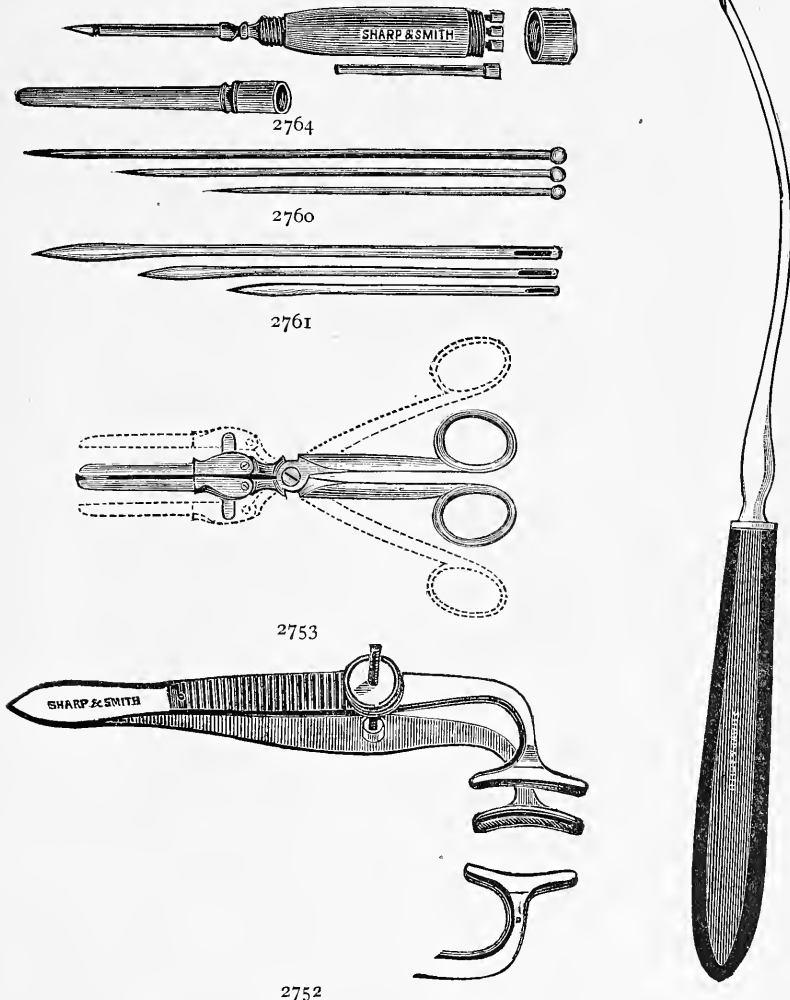


Cup and Tube.—2741.

FIG.			
2742	Mussey's Mouth Gag	.....	\$5 25
2743	Dedham's " "	.....	5 00
2744	Whitehead's " "	.....	9 00
2745	Smith's " "	.....	9 00
2746	Wier's " "	.....	5 25
2747	Lentz's " "	.....	4 50
2748	O'Dwyer's " "	(see page 510).....	3 75
2749	Waxham's " "	.....	3 75
2750	Warren's " "	.....	3 00
2750-A	Hartman's " "	and Retractor.....	10 00

HARE LIP INSTRUMENTS.

FIG.			
2751	Smith's Hare Lip Forceps.....		\$4 50
*2752	Hutchinson's Hare Lip Forceps.....		2 25
*2753	Parallel.....		6 75
2754	Simpson's Pin Cutting Forceps.....		2 75
2755	Prince's Hare Lip Clamp ...		2 25
2756	Buck's Pin Carrier Folding, Plain.....		75
*2757	" " " ".....		1 50
2758	Post's " " Folding, Plain.....		75
2759	Buck's & Post's Pin Carrier, in one handle.....	\$ 2 25	
*2760	Buck's Pins, 1 to 2 inch.....doz.	05	
*2760	" " 2½ inch.....	10	
*2760	" " 3 inch.....	15	
*2761	Hare Lip Needles.....per dozen	1 25	
2762	Canulated Silver Needles.....each	40	
2763	Plastic Needles.....doz.	20	
*2764	Southey's Set of Trocars and Canulas.....	2 50	

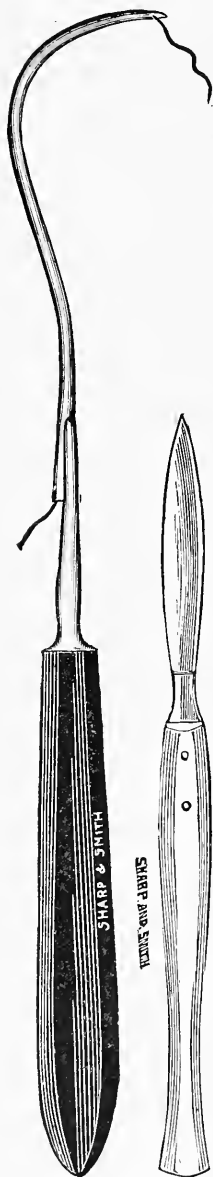


All instruments designated by a * are illustrated.

2757

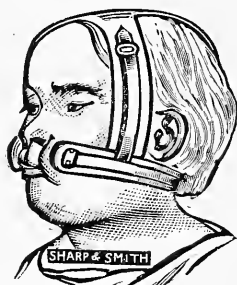
HARE LIP INSTRUMENTS.

FIG.		
*2765	Emmet's Canulated Needle.....	\$1 85
*2766	Ivory Handle Scalpel.....	1 00
2767	Ebony " ".....	75
*2768	Hornby's Hare Lip Truss.....	4 50
2769	Hamilton's Hare Lip Scissors.....	1 50
*2770	Angular " " ".....	1 00
*2771	Curved " " ".....	1 00

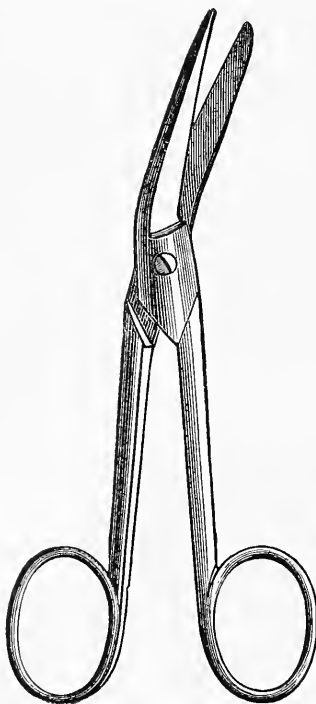


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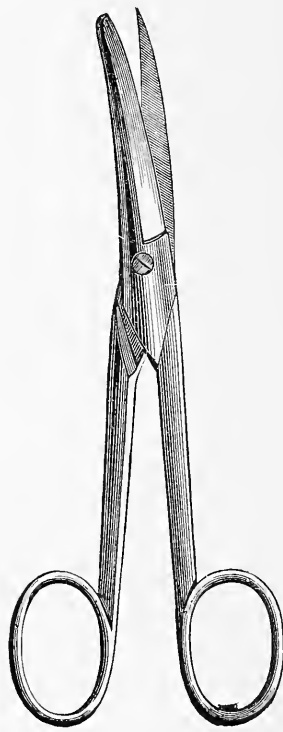
2766



2768



2770



2771

TOOTH-EXTRACTING FORCEPS.

ALL OUR FORCEPS ARE OF THE BEST QUALITY, NICKEL PLATED AND FULLY WARRANTED.

FIG.

*2775	No. 19—Right Upper Molar.....	} \$1 50 each.
*2776	No. 19—Left “ “	
*2777	No. 24—Universal “	
*2778	No. 28—Right and Left Lower Molar.....	

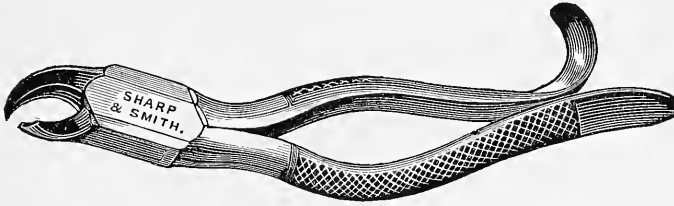


Fig. 2775 (No. 19). Right Upper Molar.

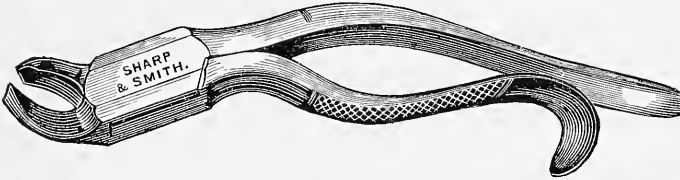


Fig. 2776 (No. 19). Left Upper Molar.

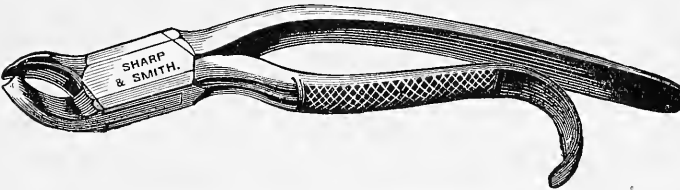


Fig. 2777 (No. 24). Universal Molar.

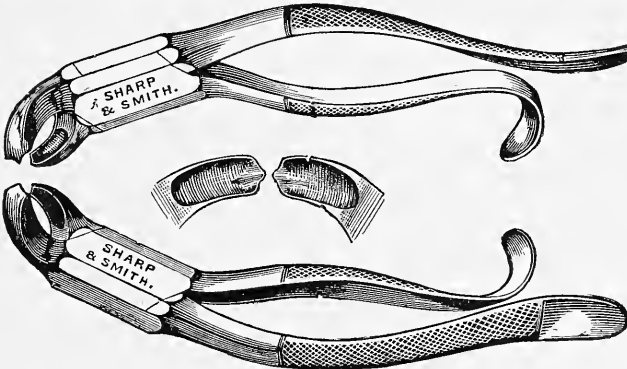


Fig. 2778 (No. 28). Right and Left Lower Molars.

TOOTH FORCEPS.

FIG.			
*2779	No. 47	Hutchinson's Tooth Forceps.....	\$ 1 50
*2780	No. 23	Lower Molar Cow-Horn, either side.....	1 50
*2781	No. 16	" " " " " "	1 50
*2782	No. 45	Upper " " " " " "	1 50
*2783	No. 14	Lower Incisor.....	1 50
*2784	No. 13	Upper "	1 50

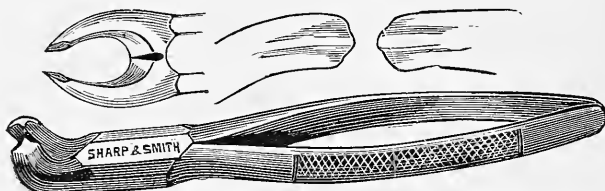


Fig. 2779 (No. 47). Lower Molar (Hutchinson's).

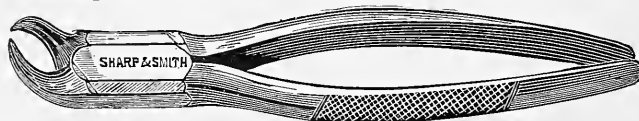


Fig. 2780 (No. 23). Lower Molar Cow-Horn, either side.

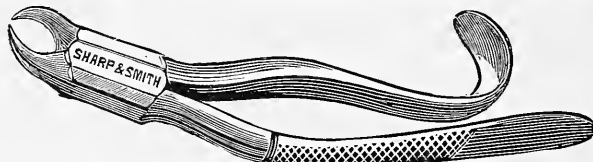


Fig. 2781 (No. 16). Lower Molar Cow-Horn, either side.

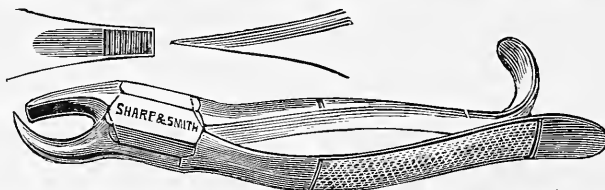


Fig. 2782 (No. 45). Upper Molar Cow-Horn, either side.

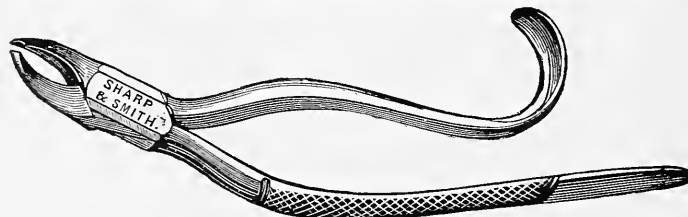


Fig. 2783 (No. 14). Lower Incisor.

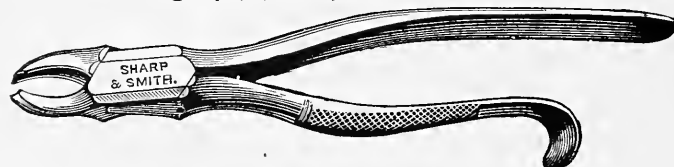


Fig. 2784 (No. 13). Upper Incisor.

TOOTH FORCEPS.

FIG.

*2785	No. 8	Universal Incisor and Bicuspid.....	\$ 1 50
*2786	No. 46	Lower " " ".....	1 50
*2787	No. 4	Upper and Lower Bicuspid, half curve.....	1 50
*2788	No. 25	Lower Bicuspid, Safety.....	1 50
*2789	No. 27	Lower Wisdom.....	1 50
*2790	No. 10	Upper Dentes Sapientiae, with or without hook, either side.....	1 50

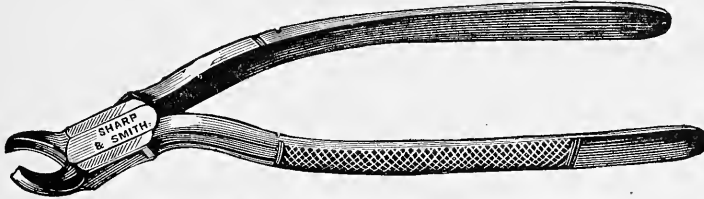


Fig. 2785 (No. 8). Universal Incisor and Bicuspid.

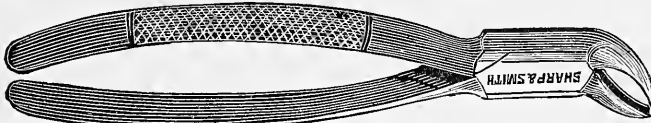


Fig. 2786 (No. 46). Lower Incisor and Bicuspid, either side.



Fig. 2787 (No. 4). Upper and Lower Bicuspid, half-curve.

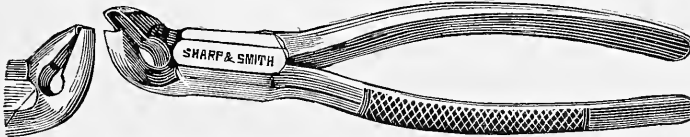


Fig. 2788 (No. 25). Lower Bicuspid, Safety.



Fig. 2789 (No. 27). Lower Wisdom.

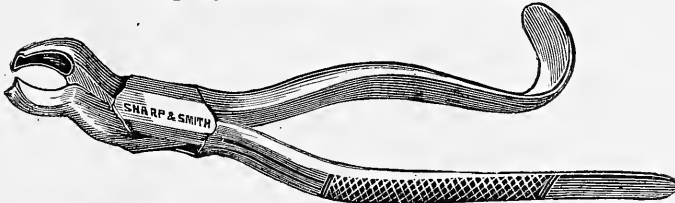


Fig. 2790 (No. 10). Upper Dentes Sapientiae, with or without Hook, either side.

TOOTH FORCEPS.

FIG.			
*2791	No. 22.	Lower Dentes Sapiientiæ either side.....	} \$1 50 each.
*2792	No. 7.	Universal Root.....	
*2793	No. 3.	Lower Root, Full Curve.....	
*2794	No. 2.	Upper and Lower Root, Half-Curved.....	
*2795	No. 1.	Upper Front Root, Straight.....	
*2796	No. 35.	Bayonet Root.....	

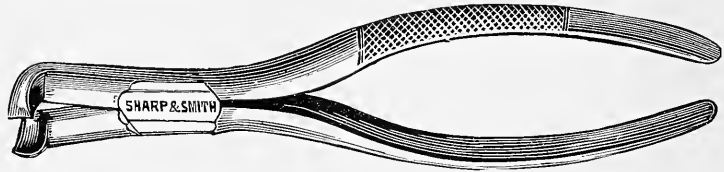


Fig. 2791 (No. 22). Lower Dentes Sapiientiæ, either side.

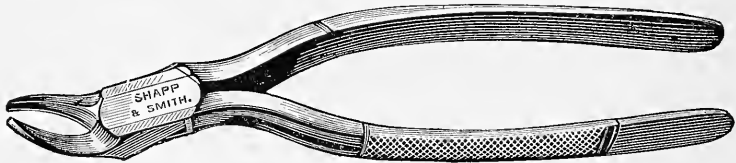


Fig. 2792 (No. 7). Universal Root.



Fig. 2794 (No. 2). Upper and Lower Root, Half-Curved.



Fig. 2795 (No. 1). Upper Front Root, Straight.

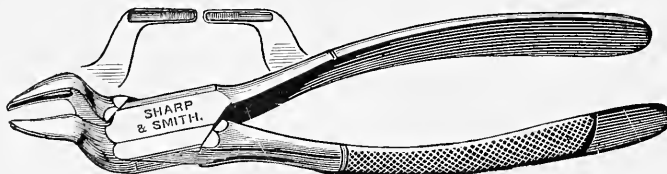


Fig. 2796 (No. 35). Bayonet Root.

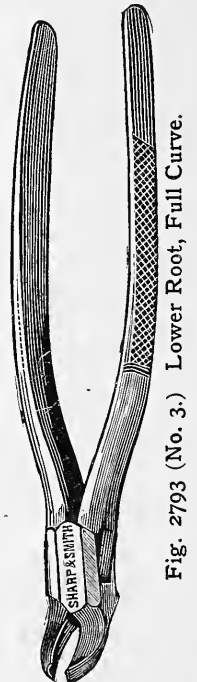


Fig. 2793 (No. 3.) Lower Root, Full Curve.

TOOTH FORCEPS AND SETS.

*2797 Brophy's set of Tooth Forceps, for Physicians' use\$7 85

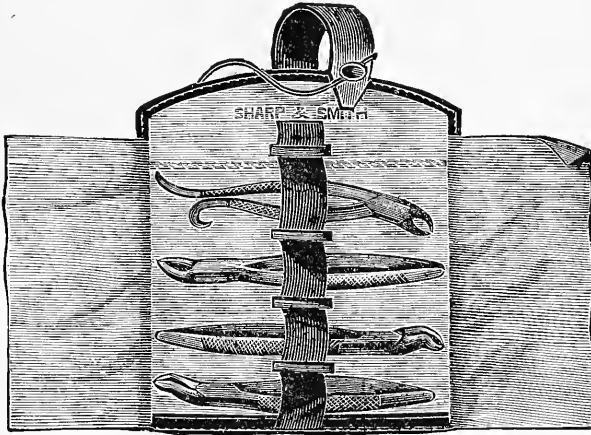


Fig. 2797. Dr. Brophy's (Rush College) Set of Tooth Forceps for Physicians' use.

CONTAINING

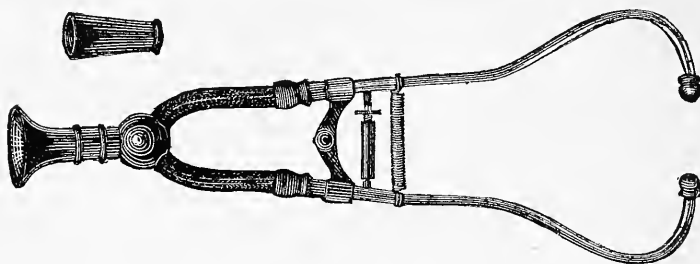
- | | | | | | |
|-------------------------|---|------|----------|---------|----------------|
| 1 | | Pair | No. 28R, | Tooth | Forceps. |
| 1 | " | " | 32, | " | " |
| 1 | " | " | 39, | " | " |
| 1 | " | " | 10, | Special | Tooth Forceps. |
| In Chamois Lined Pouch. | | | | | |

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INSTRUMENTS FOR PHYSICAL DIAGNOSIS.

FIG.	
*2800	Camman's Ordinary Stethoscope.....\$2 00
*2801	“ Stethoscope with closed spring adjustment..... 3 00
*2802	Sharp & Smith's Improved spring adjustment Stethoscope..... 3 75
*2803	Knight's Improved (Camman's) Stethoscope..... 4 50



2801

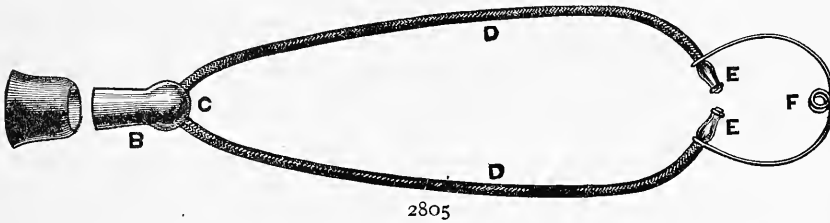


Instruments designated by a * are illustrated,

INSTRUMENTS FOR PHYSICAL DIAGNOSIS.

FIG.

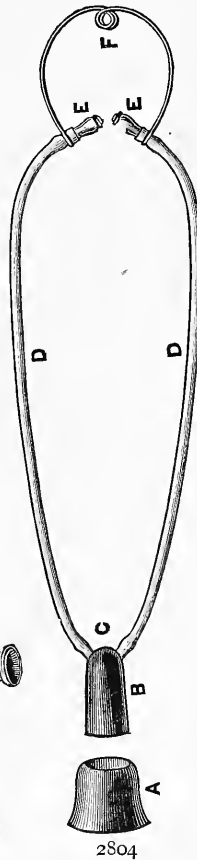
*2804	Sharp & Smith's Perfected Camman's Stethoscope, No. 1.....	\$ 2 20
*2805	“ “ “ “ “ No. 2.....	1 85
*2806	Allison's Differential Stethoscope.....	3 50
*2807	Paul's Stethoscope.....	2 75
2808	Laenec's “.....	6 00
2809	Koefenderfer's Stethoscope.....	2 75
2810	Davis' Stethoscope.....	3 00
2811	Powell's “.....	2 25
2812	Loomis' “.....	3 00



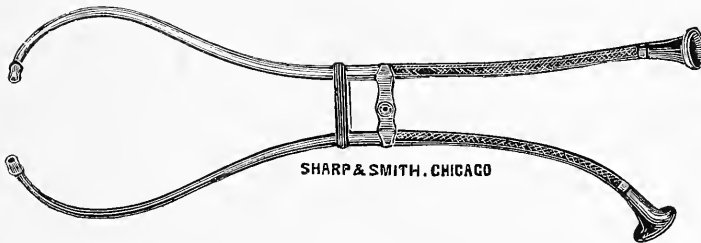
2805



2807



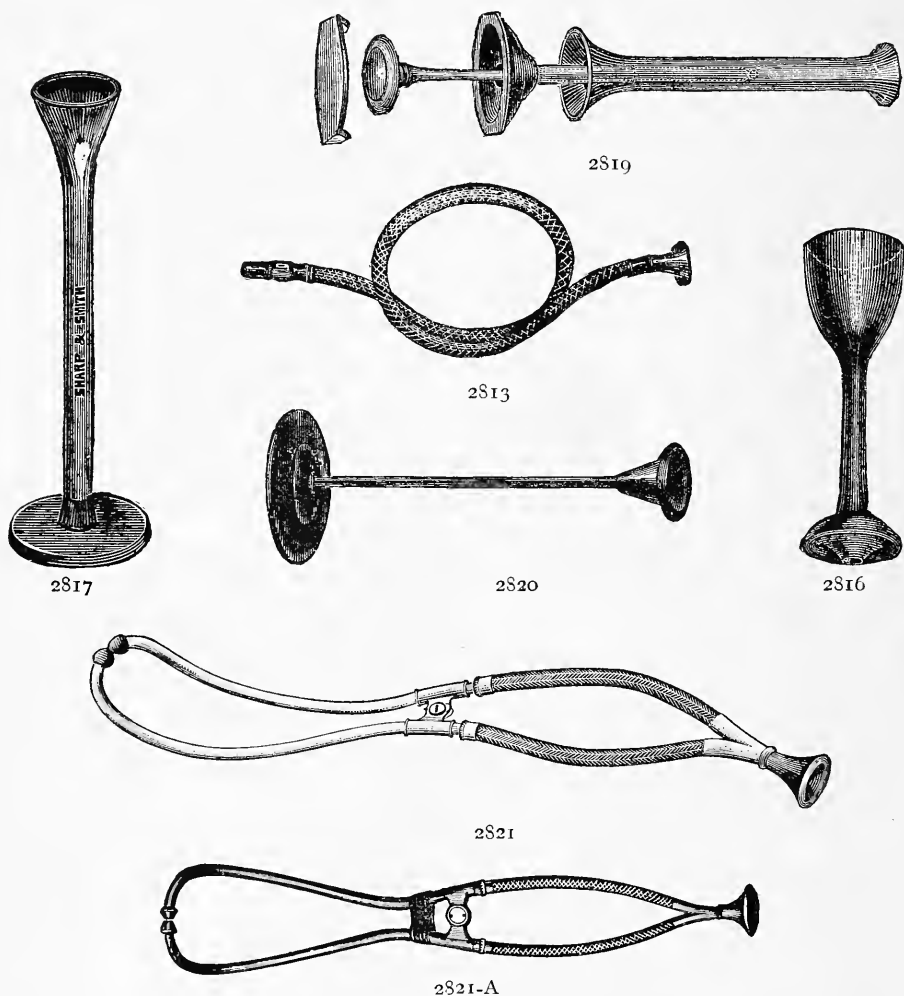
2804



2806

INSTRUMENTS FOR PHYSICAL DIAGNOSIS.

FIG.			
*2813	Arnold's Stethoscope.....	\$	1 00
2814	Boeker's "		1 00
2815	Martin's Combined Stethoscope.....		3 75
*2816	Cedar Stethoscope.....		40
2816-A	" " with rubber ring.....		85
*2817	Ebony "		1 00
2817-A	" and Ivory Stethoscope.....		1 50
2818	" Stethoscope, with rubber ring.....		1 25
*2819	" " with Pleximeter and Hammer.....		2 50
*2820	Hawksley's New Stethoscope.....		1 00
*2821	University Stethoscope, Improved.....		2 25
*2821A	" "		2 25

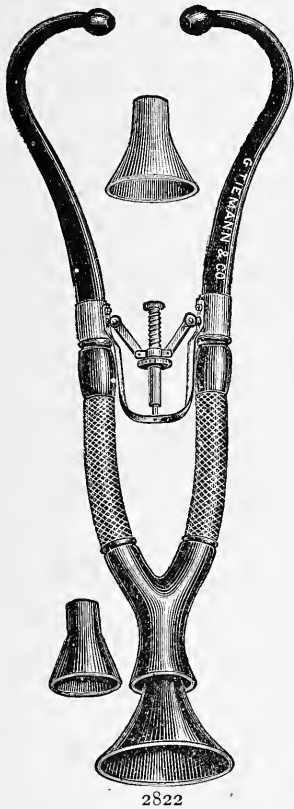


Instruments designated by a * are illustrated.

INSTRUMENTS FOR PHYSICAL DIAGNOSIS.

Fig. *2822 Dennison's Hard Rubber Stethoscope.....\$ 9 00

The instrument here presented is the result of considerable experimenting and differs from those heretofore used in many particulars which are of great importance in a good instrument, though in outward appearance it is very much like other stethoscopes. The points of dissimilarity are those which by having many different kinds made, are the essentials in a perfect instrument.



1. *As to the quality of sound.*—The material of which an instrument is made determines the character of the sound obtained. A stethoscope made wholly of metal or with metal tubes only, gives a metallic quality to all the sounds transmitted, whose pitch seems to be elevated and thereby unnatural. This perversion of natural sounds is not obtained in any such degree by gutta-percha, wood or celluloid. In this instrument is chosen hard rubber for the arms instead of the metal heretofore used in most stethoscopes, and I have had the flexible tubes made so as to give a smooth inner surface to the coiled wire, which holds them in shape. We have succeeded in embedding the wire between two tubes of soft rubber and then vulcanizing them together. This arrangement gives nearly as natural effects as does a stethoscope made wholly of hard rubber, which of course would be inflexible and unyielding.

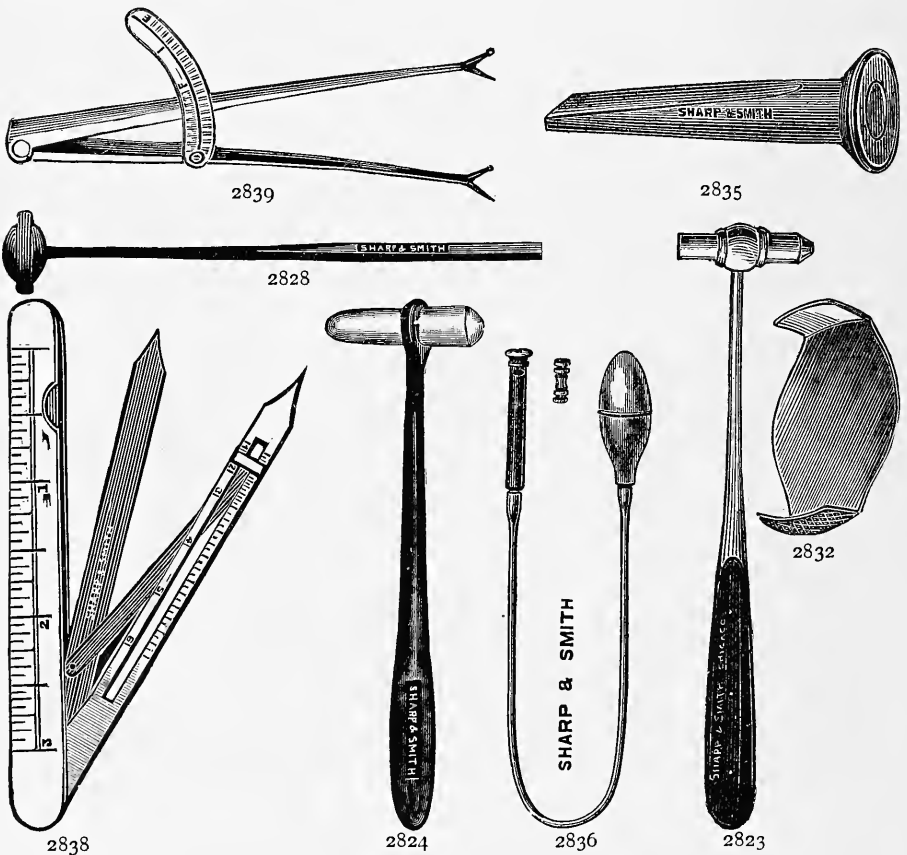
2. *As to the form of the instrument.*—The size of the canal in this instrument is largest at the attachment of the bell and gradually decreases in diameter to the ear ends, and is in imitation of those trumpets or conversation tubes which best serve the purposes of deaf persons, owing to their property of concentrating and conducting the waves of sound, and forms one of the principal advantages of the instrument.

The larger sized tube used in this stethoscope is an especial advantage to those physicians who have slight defects in hearing, and will be preferred we believe by the great majority of the profession. The ear-tips are shaped with particular reference to the direction of the canal in the arms of the stethoscope and have the lower and forward edges bulged to such an extent as to fill in spaces behind the tragi, so that it throws the tube openings in the direction of the auditory canals. The ear-tips are crowded into the external auditory canal as firmly as can be comfortably done by means of a rather stiff spring, which brings the arms of the instrument together, and which is supplied with a set screw so that it can be regulated to suit the listener.

All the joints, bells, tubes and arms are constructed on the principle of a slightly conical tube, each portion fitting evenly and tightly into the other, and the fastenings of the flexible portion to the gutta-percha are so perfect that there is no interruption in the transmission of sounds from the chest to the ear.

INSTRUMENTS FOR PHYSICAL DIAGNOSIS.

FIG.			
*2823	Flint's Percussion Hammer, best.....	\$	75
*2824	" " " rubber		55
2825	Bennett's " "	I	00
2826	Bartlett's " "		90
2827	Winterich's " "	I	50
*2828	Wells' " "	I	25
2829	Schroeter's " "	I	50
2830	North's " "	I	00
2831	Post's Hard Rubber Pleximeter.....		60
*2832	Flint's " "		25
2833	" Ivory "	I	00
2834	Bartlett's Hard Rubber "		60
*2835	Camman's Inter Costal Auscultator.....	I	25
*2836	Ingal's Embalometer.....	2	25
2837	Seguin's Æsthesiometer.....	3	20
*2838	Vance's "	4	00
*2839	Carroll's "	3	00
2840	Hammond's "	2	00
2841	Sieveking's "	3	20



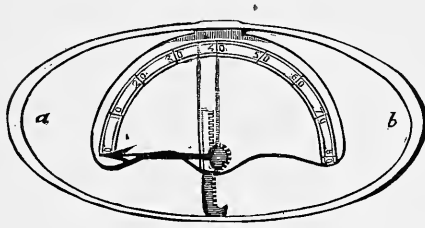
All instruments designated by a * are illustrated.

INSTRUMENTS FOR PHYSICAL DIAGNOSIS.

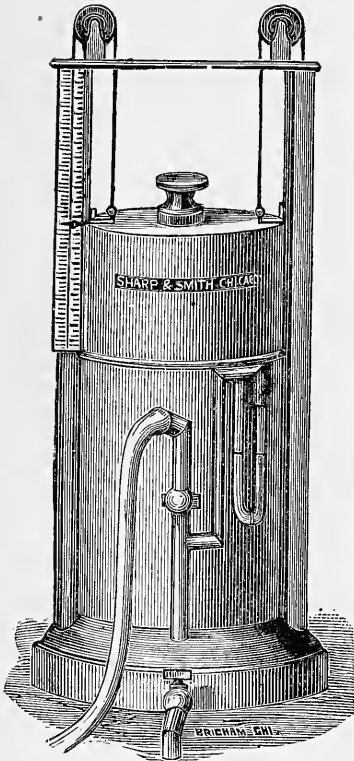
FIG.		
*2842	Dynamometer.....	\$ 6 00
2843	Dudgeon's Sphygmograph.....	24 00
*2844	Marez's ".....	60 00
*2845	Pond's ".....	35 00
2846	Brown's Spirometer.....	9 00
2847	Barnes' ".....	8 00
*2848	Hutchinson's ".....	32 00
*2849	Marsh's ".....	2 50
2850	Extra Balloon for Marsh's Spirometer	25
2851	Dio Lewis' Improved ".....	11 00



2849



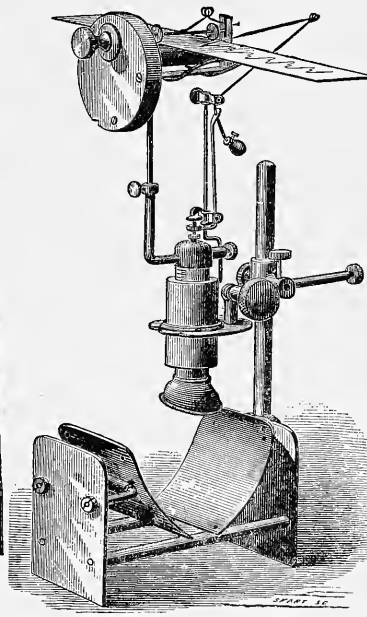
2842



2848



2844

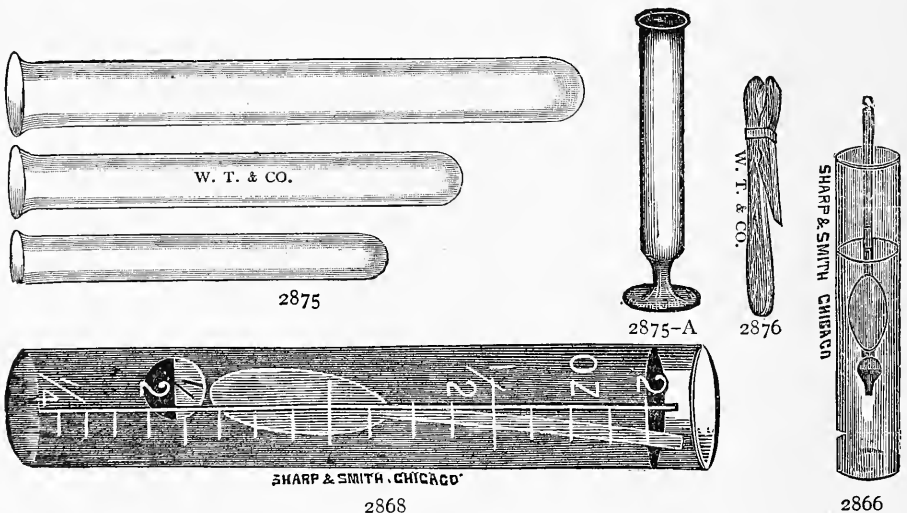


2845

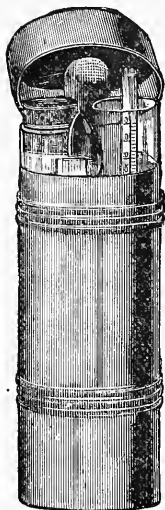
All instruments designated by a * are illustrated.

INSTRUMENTS FOR PHYSICAL DIAGNOSIS.

FIG.			
2852	Carroll's Stethometer.....	\$	3 20
2853	Quain's ".....		8 00
2854	Marsh's Pocket Respirometer.....		12 00
2855	Waldenberg's Pneumatometer.....		6 50
2856	" " Pneumatic Apparatus.....		67 50
2857	Tobold's " ".....		48 50
2859	Holden's Resonator.....		2 00
2860	Camman's Cardiometer.....		4 00
2861	Flint's ".....		8 00
2862	White's Haemarheumoscope.....		1 20
2863	Spring Tape Measure, Metal Case, 3 feet.....		40
2864	" " " " " 5 feet.....		45
2865	Chestermann Steel Tape Measure, Metal Case....		1 50
*2866	Plain Urinometer, Wood Case.....		50
2867	English ".....		75
*2868	Best " " enamel stem, plain black letters, and gradu- ated test glass.....		90
2869	Squibbs' Urinometer.....		75
2870	Hard Rubber " (patent)....		2 25
2871	Thermometer and Urinometer combined.....		1 25
2872	Vance's Urinary Test Case.....		4 50
2873	Compact " ".....		5 00
2874	Complete " " with reagents.....		16 50
*2874-A	Bartley's " ".....		2 00
*2875	Test Tubes, 6 inch.....	per doz.	35
2875	" 5 ".....	"	30
2875	" 4 ".....	"	25
2875	" 3 ".....	"	20
2875	" 8 ".....	"	50
2875	" 3 to 6 ".....	nested	30
*2875-A	" on foot.....		10
*2876	" Holders.....		25



All Instruments designated by a * are illustrated.

BARTLEY'S POCKET URINARY TEST CASE.**WARRANTED.****MANUFACTURED OF GERMAN SILVER.**Dimensions $4 \times 1\frac{1}{4} \times 1\frac{1}{2}$ inches.**THOUSANDS IN USE.**

2874-A

These Re-agents leave nothing to be desired as regards delicacy and certainty.

No filtering of the Urine necessary.

The Re-agents can be renewed by your home Druggist.

It is unique, durable and cleanly.

This case contains a scientifically correct urinometer inclosed in a cloth bag to prevent breakage, a heavy glass test tube serving as a urinometer jar and test tube, a package of litmus test papers, a pipette for convenience in handling the urine, two vials to contain the test powders and spoon. With these the following points may be determined at the bedside, viz.: The quantity of urine passed, the color, transparency, reaction, specific gravity, total solids passed, and the presence or absence of sugar and albumen.

Each Bottle contains sufficient Powders for some 50 Tests.

A small handbook containing instructions, formulæ for the powders and valuable information obtained by recent investigations of Dr. Bartley and others, accompanies the case.

Please do not mutilate this book.

Send us Number of Page and Figure, and we can promptly fill your order.

SELF-REGISTERING FEVER THERMOMETERS.

With Absolutely Indestructible Register.

The great improvement made in self registering fever Thermometers, by forming an indestructible register, has within the past year or two, practically driven from the market the old style of fever Thermometer, which registered by means of a piece of mercury detached and separated from the main column by a small air space. The indestructible register is formed by a very small contraction of the caliber near the bulb, which allows the column to rise, but upon contraction of the mercury the column breaks at the contraction in the caliber, thus leaving that part of the column above it a stationary register, until shaken down by the operator. *We particularly recommend this Thermometer to the trade* All of our clinical Thermometers are made from seasoned tubes, and put up in hard rubber cases. Certificates from the Thermometric Bureau of Yale College, will be furnished if desired.



A Few Remarks about Clinical Thermometers.

The normal temperature of the human body, at completely sheltered parts of its surface, amounts to 98.4° Fahr., or a few tenths more or less, and a rising above 99.5° Fahr., or a depression below 97.3° Fahr., are sure signs of some kind of ailment, if such increase or decrease is persistent.

The average temperature of the trunk of the body in the tropics is nearly one degree higher than in temperate climates.

The increase of temperature above 99° F., as measured by the thermometer is the best index of the amount of fever present in any disease.

The temperature of the body in disease is much more readily and rapidly influenced than either the pulse or respiration. The co-relation of the pulse, respiration and temperature is of the utmost importance to be known in many diseases. For example, in pneumonia, if the mean of the temperature is not above 104° Fahr., and that of the pulse is not above 120 in a minute, and the mean of the respirations not over 40 in same time, the case must be considered a slight one, and if the patient is healthy otherwise, he will surely commence to get well in from eight to twelve days, without any medical treatment beyond attention to diet and rest.

Each disease which runs a definite course (scarlet fever, measles, small pox, typhus, typhoid, rheumatism, acute phthisis, etc., etc.,) has a characteristic and distinctive range of temperature.

The necessity of using a reliable thermometer is, therefore, of the utmost importance.

CLINICAL THERMOMETERS.

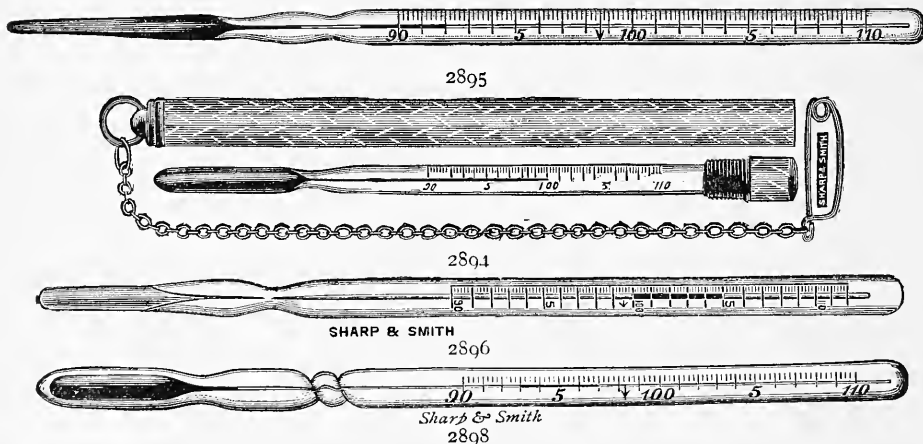
Please Read and Carefully Observe these Directions.

Thermometers are in working order, and always ready for application when the top part of the small bit of mercury that forms the Index is below the arrow point. After using it, and in order to bring the Index again below the arrow point and ready for use, take the top part of the stem of the Thermometer (near the 105) between the thumb and first finger, with the bulb turned downward, or inclined toward the floor. In this position quietly swing from you (like a pendulum) from the elbow down, leave wrist hang as loose as possible. Always look at the position of your Index after each swing, until you again see the top part of it below the arrow point, and it is again ready for application. If it be found that one or two quiet swings is not sufficient to bring the top part of the Index below the arrow point let your swing be somewhat forcible. Don't shake the Index lower than is necessary.

One or more separations of the column does not put the instrument out of order. Always take the top part of the top separation for a reading, and so long as any separation remains the instrument is good for years.

By observing these directions you will have no trouble with your Thermometer.

FIG.	
*2892	Sharp & Smith's Self-Registering Indestructible Index Thermometer..... \$1 25
2893	Sharp & Smith's Self-Registering Indestructible Index Thermometer, black..... 1 50
*2894	Sharp & Smith's (Gilt Case and Chain) Self-Registering Indestructible Index Thermometer..... 1 75
*2895	Sharp & Smith's (one minute) Self-Registering Indestructible Index Thermometer..... 1 50
*2896	Hicks' Self-Registering Indestructible Index Thermometer. 1 50
2897	" Lens front " " " " 2 75
*2898	Spiral " " " " 1 25
*2899	T. & Co.'s Syphon " " " " 2 50
*2900	Spiral Surface Self-Registering Thermometer \$6 00 to 7 50
2900A	Surface " " 2 50 to 7 50
*2901	Seguin's Surface " " 2 00



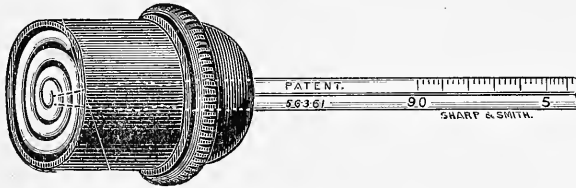
All Instruments designated by a * are illustrated,

CLINICAL THERMOMETERS.

FIG. *2902	Patent Double Bulb Thermometer (see description below).....	\$ 1 50
2903	“ New Twisted “ “ “	2 50



2899



2900



2901



2902

A matter of great importance to physicians, in order to obtain the temperature of a feverish patient, is to have a correct, quick working instrument, and one that will enable them to see the register quickly.

Many are the contrivances resorted to to enlarge the column, but the trouble has always been that a large bore tube requires a correspondingly large bulb, which would be too slow of motion, and therefore impracticable. Hicks, of London, has succeeded in enlarging the column of mercury by the use of a prismatic (magnifying) front, but there still remains the need of first finding the proper axis of the prism, so as to enlarge the column.

Annexed cut shows at once the advantage of this instrument above all others.

I. Instead of a large, slow moving bulb, we use two small bulbs which by uniform action supply the large bore with a big column of mercury, the standing of which can be seen at a glance.

II. The two bulbs exposing double the amount of surface to the influence of temperature than the single, will necessarily move much quicker.

III. The double bulb forming a flat surface, will prevent the instrument from rolling, a point that will not fail to be appreciated by the practitioner.

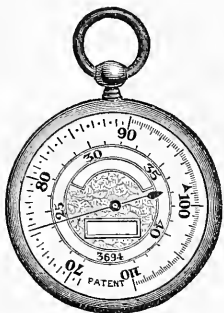
IV The instrument having an indestructible index (self register) by which the losing of the register is completely overcome.

In recommending this new instrument we guarantee that every thermometer is fully seasoned and carefully tested before leaving our factory, and certificates, when desired, will be issued from the Observatory in Yale College, New Haven, which will bear out our claim for accuracy.

CLINICAL THERMOMETERS.

FIG.

*2904	Immisch's Avitreous Clinical Thermometer, silver.....	\$ 7 50
2904-A	" " " " " with certificate, silver.	8 00
2905	" " " " " " " gold ..	20 50
2905-A	" " " " " " " ..	20 00



No. 2904.

The glass Thermometers now in use, are of necessity so frail that the chances of breaking one almost as soon as bought are excellent, and for this reason many physicians are compelled to spend from twenty-five to fifty dollars a year for Clinical Thermometers alone. A reliable instrument that will last indefinitely has always been desired, but until *Immisch's Avitreous Thermometer* was invented could not be obtained.

These neat and elegant instruments are in shape like a miniature watch with thick glass face and either gold or silver case, and though the first cost is a trifle more than that of the ordinary glass thermometer, they are far cheaper in the end, as with ordinary care they will last a lifetime.

The figures on the face or scale are clearly marked in both Fahrenheit and Celcius, and the temperature can be read far easier than on any other thermometer; in fact, in this respect alone, the Avitreous Thermometers possess the greatest possible advantage over the best glass tube instruments ever made.

On account of their shape and size they can be either worn on the watch chain as a charm, or carried in a neat case in the vest pocket; while, if preferred, they may be attached to a small cord round the neck, which will allow the instrument to be inserted either in the mouth or axilla without fear of being swallowed or falling.

As a surface Thermometer it is unsurpassed for readily recording the temperature; its sensitive nature is shown by the slightest breath on the case causing the indicator to move.

For use internally it can neither injure nor receive injury, and is consequently convenient and safe. Before being applied the instrument can be brought by friction to about normal; this saves much time with a restless patient or fractious child. No shaking down is required, the instrument readily accommodating itself to the altered temperature. About 30 seconds elapse before the temperature last recorded is changed. This is generally admitted to be sufficient time in which to take the reading.

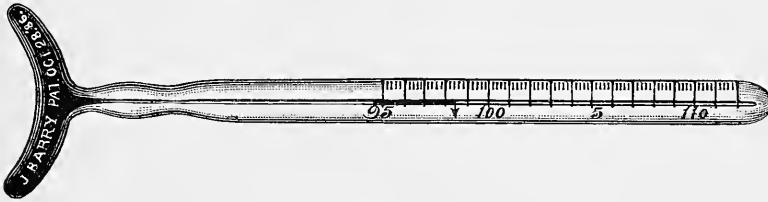
The mechanism is so simple that it would be hardly possible for it to get out of order, and even in so unlikely an event it can be easily and inexpensively repaired. The action of the instrument depends upon the opening and closing of a metallic tube which is filled with highly expansive liquids; this being the case, it is insensible to barometric changes, as has been proved to the satisfaction of the highest scientific authorities. It received the only First Class award for Thermometers at the International Medical Congress, 1881, but has only recently been made for sale.

Possessing so many advantages over the ordinary thermometer, the glass of which is generally made so thin over the bulb that it becomes often dangerous to use, it cannot be wondered at, that it has received the highest praise from the medical press and profession, while the meteorological, engineering, and other scientific journals unite in recommending it to the public generally, as an accurate, ingenious and sensitive instrument.

All instruments designated by a * are illustrated.

CLINICAL THERMOMETERS.

FIG.		
*2906	Sharp & Smith's Companion Case	\$ 5 00
*2907	Barry's New Self Registering Indestructible Index Thermometer	1 75
2908	" Self " " "	
	ordinary.....	1 25
2909	Colored Bulb Self Registering Indestructible Index Thermom- eter.....	1 50



2907

The improvement in Fig. 2907, Thermometer, is in the stem or graduated part, being brought parallel with the center of the cylinder, and having the bulb partly curved so that it will come in contact with all the necessary parts under the tongue, and at the same time will rest securely and not slide either way. By this means, as well as by the fact that the bulb is surrounded by the flesh, either with the mouth shut or open, the heat being evenly distributed, a more uniform and satisfactory result is obtained. The instrument may be used for surface temperatures, and its crutch shape also adapts it to the axilla. They cannot roll, are strongly made, and with ordinary care will last for years.



2906

Sharp & Smith's Companion Case contains 1 No. 3 Hypo. Syringe, 1 Fig. 2892 Thermometer, 1 Soft Rubber Catheter, Hypodermic Tablets, all in neat morocco covered, velvet lined case, $4\frac{3}{4} \times 1\frac{3}{4} \times \frac{7}{8}$.

HYPODERMIC SYRINGES.

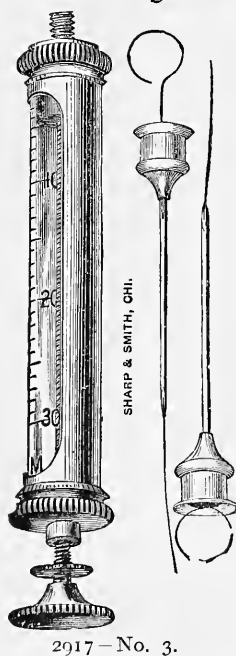
We keep in stock a very large assortment of Hypodermic Syringes of our own make, and others. We guarantee the quality of all of them, and will repair syringes free of charge where the fault is our own.

In ordering "needles" for Hypodermic Syringes, it is better to send us the syringe on which they are to fit, or an old needle of the kind wanted, so as to insure an accurate fit.

In sending syringes to us for repairs, please put your name on the bottom of the syringe box or on a tag attached to the syringe.

The "pistons" of all syringes should be kept in proper order by frequent oiling, and renewing of the leather packing whenever it becomes too loose.

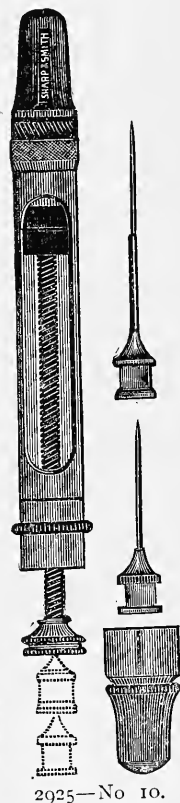
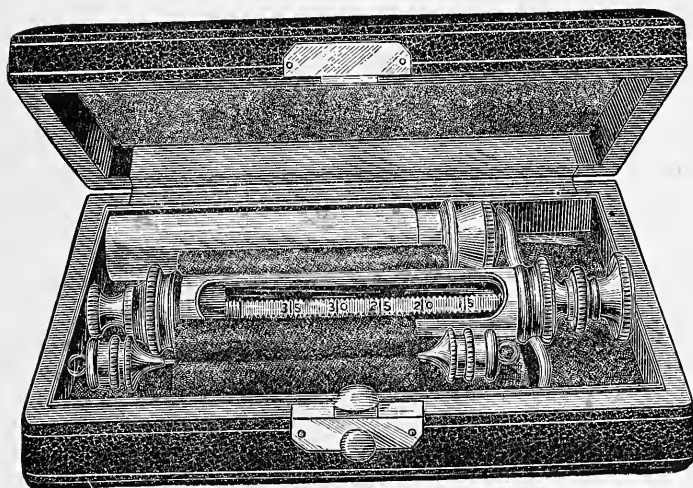
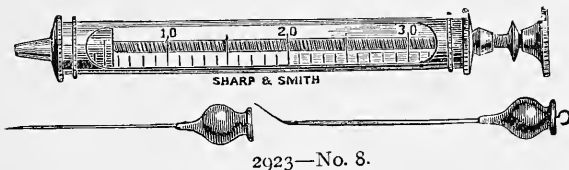
- FIG.
2915 Sharp & Smith's Hypodermic Syringe, No. 1. Fenestrated, graduated glass barrel, two needles.....\$ 1 50
*2916 Sharp & Smith's Hypodermic Syringe, No. 2. Plain, graduated glass barrel, two needles..... 1 25
*2917 Sharp & Smith's Hypodermic Syringe, No. 3. Fenestrated, graduated glass barrel, two N. P. Needles..... 1 50
*2918 Sharp & Smith's Hypodermic Syringe, No. 3x. Fenestrated, graduated glass barrel, two N. P. Needles (reinforced), morocco case, with space in top for wire, packing, etc..... 1 75
2919 Sharp & Smith's Hypodermic Syringe, No. 4. Solid barrel, graduated on piston, two N. P. Needles..... 1 75



All of our Hypodermic Syringes are furnished with "cases," whether illustrated as such or not—except when otherwise designated.

HYPODERMIC SYRINGES.

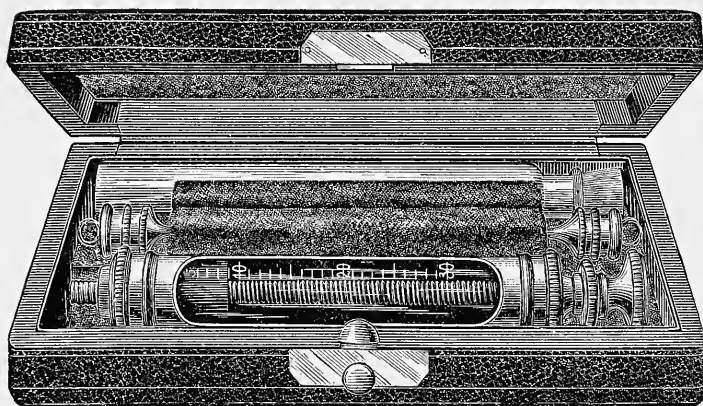
FIG.			
2920	Sharp & Smith's Hypodermic Syringe, No. 5, Fenestrated, graduated glass barrel, two N. P. Needles, oval Morocco case...	\$	1 75
2921	Sharp & Smith's Hypodermic Syringe, No. 6, Fenestrated, graduated glass barrel, two N. P. Needles, metal case.....	1	75
2922	Sharp & Smith's Hypodermic Syringe, No. 7, Hard rubber barrel, graduated on piston, two needles.....	1	25
*2923	Sharp & Smith's Hypodermic Syringe, No. 8, Fenestrated, graduated glass barrel, two gold-plated needles, syringe gold-plated, Morocco case, space in top for wire, etc.....	3	00
*2924	Sharp & Smith's Hypodermic Syringe, No. 9, Double Fenestrated, graduated on both piston and glass, 3 assorted steel, nickel plated needles—in fine Morocco covered case, space in top of case for wire, etc., screw cap for keeping packing moist	2	25
*2925	Sharp & Smith's Hypodermic Syringe, No. 10, Pocket syringe, Double Fenestrated, capped at both ends, carrying two fine steel needles in one end, and provided with room at the other end for carrying tablets if desired.....	2	00



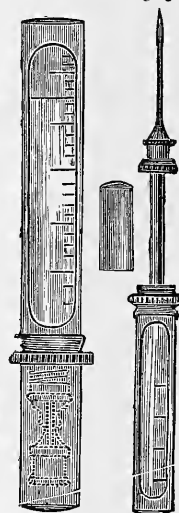
This Hypodermic Syringe is a very popular one, being made with finger rests on the sides, which are of considerable assistance in using the instrument. They are also provided with a vial with perforated rubber stopper, which greatly facilitates the filling of the Syringe.

HYPODERMIC SYRINGES.

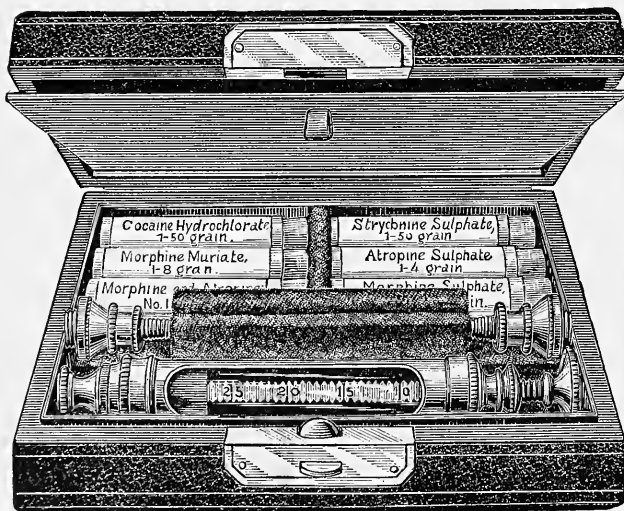
- FIG.
- | | | |
|-------|--|--------|
| *2926 | Sharp & Smith's Hypodermic Syringe No. 11. Same style as figure 2918, but with Gold Plated Needles. | \$2 00 |
| *2927 | Sharp & Smith's Hypodermic Syringe No. 12. For Pocket. Patent Hollow Piston arranged similar to Fig. 2925, but with only one needle | 1 75 |
| *2928 | Sharp & Smith's Hypodermic Syringe No. 13. Very compact, holds 15 minims only, has two fine needles which are carried parallel with the barrel and are protected from rust by carefully sealed cylinders. The syringe in case is but 2½ inches long. | 3 50 |
| *2929 | Sharp & Smith's Hypodermic Syringe No. 14. Double Fenestrated, graduated on piston, end of barrel removable for introduction of hypodermic tablets; metal cap to screw on in place of the needle when the syringe is not in use. Six bottles of hypodermic tablets, two needles, in neat satin-lined Morocco case, with extra wires and washers. | 3 00 |
| *2930 | Sharp & Smith's Hypodermic Syringe No. 15. Same as No. 14, but with ears on syringe | 3 50 |



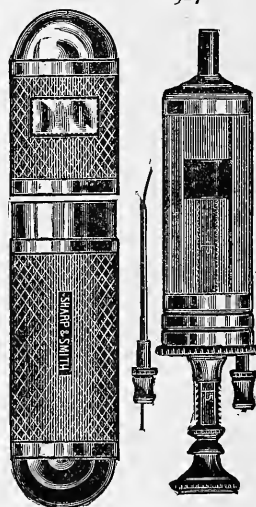
2926



2927



2929



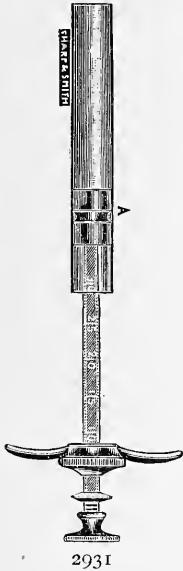
2928

HYPODERMIC SYRINGES.

FIG.

*2931	Sharp & Smith's No. 9-A Hypodermic Syringe.....	\$2 50
2932	Tiemann's No. 9 Hypodermic Syringe.....	3 00
2933	" " 1 " "	3 00
2934	" " 3 " "	2 50
*2935	Fowler's Hard Rubber Pocket Hypodermic Syringe.....	2 50

Fig. 2931. SHARP & SMITH'S No. 9-A HYPODERMIC SYRINGE.



This Syringe is in shape and size same as our No. 9, but differs from that and all others in the construction of the piston, which is provided with an *oil chamber* between the exhausting and ejecting sections of the packing, which, when filled with oil, will distribute the same along the inner surface of the glass cylinder. The leather packing, in passing along this surface, will come in contact with the oil, and be continually lubricated. This will be found of great advantage when the instrument is not in constant use; because, as soon as the piston is withdrawn, the oil contained in the chamber is immediately brought in contact with the leather packing, which renders it soft, distends it, and keeps the syringe always ready for use. The chamber should be refilled occasionally. To refill, unscrew the upper cap and withdraw the piston just enough to expose the chamber, drop in a small quantity of oil, then replace the piston, and screw the cap down firmly.

We put these Syringes up in same style as the No. 9, in velvet lined, morocco covered case — 3 fine steel N. P. points, and a bundle of non-corrosive wires.

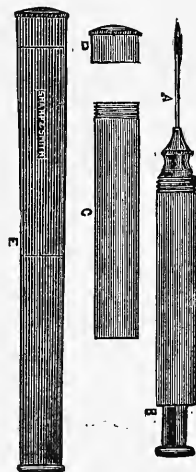
The Syringe is made at the end so as to allow of tablets being used.

Fig. 2935. FOWLER'S HYPODERMIC SYRINGE.

For the Pocket or Pocket Case.

This Syringe consists of a hard rubber barrel and piston (*b*), a needle (*a*) whose mounting screws into the barrel, and a hard rubber tube (*c*) with a cap (*d*). This second barrel serves the double purpose of a protection for the needle, and a receptacle for powders, eight of which, of a quarter of a grain each of morphine, can be placed in it.

The instrument all screwed together, is represented at *e* and is about the size and shape of an ordinary *Hard Rubber Thermometer Case*, and occupies no more room in the pocket. To give a hypodermic injection, remove the receptacle, unscrew the needle, draw back the piston and empty one of the powders into the barrel. Then pour a few drops of water into the barrel, replace the point, and after giving the instrument a few shakes to make sure that the morphine is all dissolved, it is ready for use.



Instruments designated by a * are illustrated.

2935

HYPODERMIC SYRINGES.

FIG.

2936	Declat's Hypodermic Syringe, with two Needles.....	\$5 00
*2937	" " " " four "	6 00
*2938	Leiter's " " Hard Rubber Case.....	3 75
*2939	Stimson's " " Leather Case, No. 1.....	3 00
	side the Syringe..... for pocket, all silver needles fit in-	2 00
2940	Celluloid Barrel Hypodermic Syringe, two steel Needles, Celluloid Case	3 00
2941	Celluloid Barrel Hypodermic Syringe, two steel Needles, met'l case	1 25
2942	Hypodermic Syringe and Cocaine Set.....	3 00
2943	Greene's Hypodermic Case.....	9 00



2937



2938



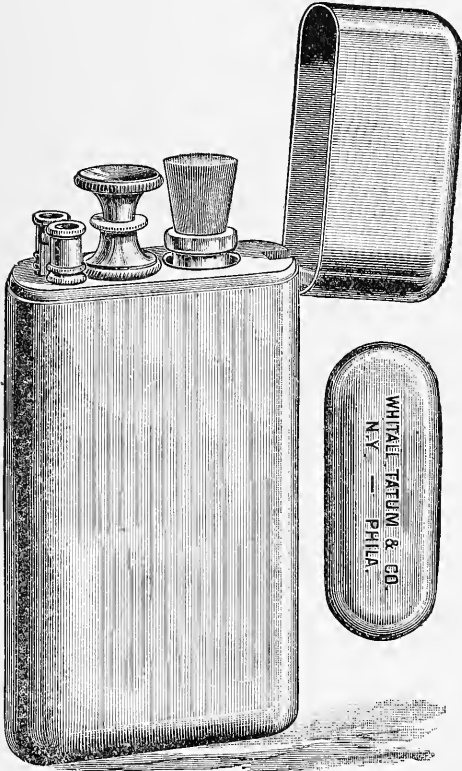
2939

All Instruments designated by a * are illustrated,

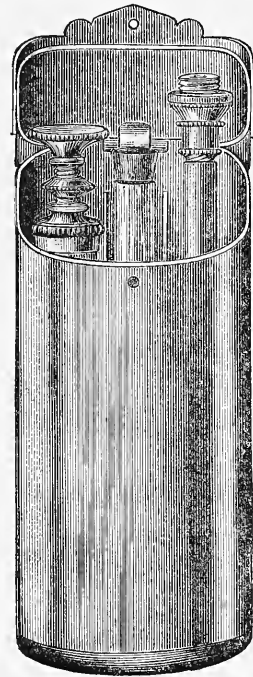
HYPODERMIC SYRINGES.

FIG.

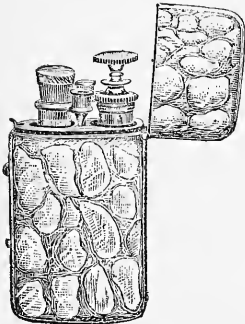
*2944	Sharp & Smith's Hypodermic Syringe, No. 16.....	\$2 25
*2945	W. T. & Co.'s No. 3 Phoenix Hypodermic Syringe.....	2 50
*2946	"Fanny" Metal Case Hypodermic Syringe.....	3 00



2945



2944



2946

Fig. 2944 This Hypodermic Syringe is designed to use with soluble tablets, and is put up in very neat and compact nickel-plated case, $\frac{3}{8} \times 1\frac{1}{4} \times \frac{1}{2}$ inch. Beside the Syringe and two Needles, the case contains 20 tablets of Morphine Sulphate $\frac{1}{4}$ grain.

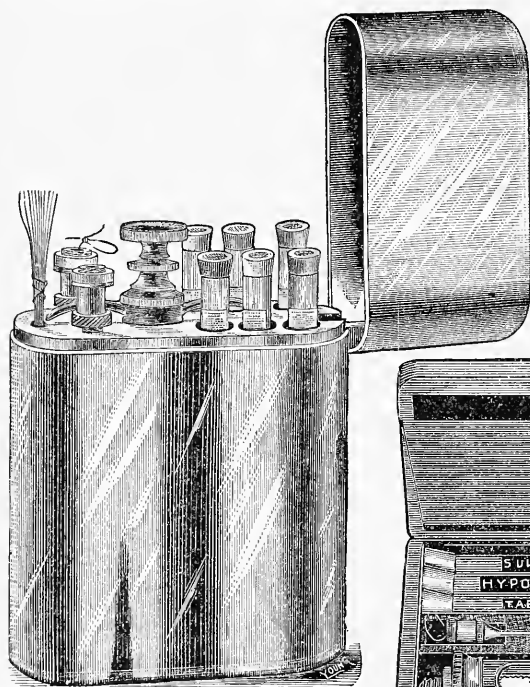
In other respects the same description will apply to this Syringe as to Fig. 2929.

Instruments designated by a * are illustrated.

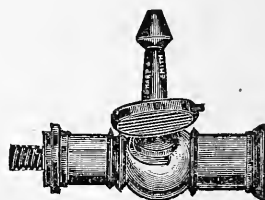
HYPODERMIC SYRINGES.

FIG.

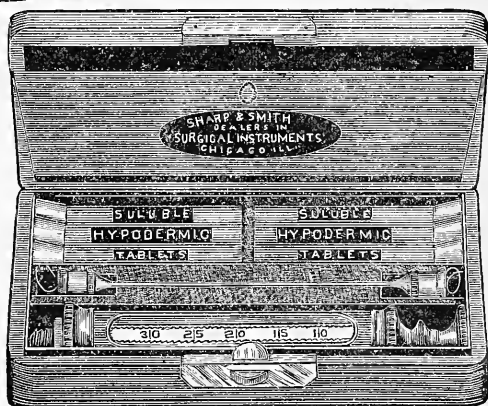
*2947	P. D. & Co's. Tablet Syringe in metal case, with six bottles of Tablets. This Syringe has the Patent Plunger Attachment.....	\$3 50
*2947-A	Sharp & Smith's Hypodermic Syringe No. 17.....	2 50
*2948	Stop Cocks for Aspirator Attachment to Hypodermic Syringes.....	1 25
*2949	Pure Silver Canulas (Ingals'), to fit Hypodermic Syringes.....	1 00
2950	Hypodermic Bottles, Tiemann & Co.'s.....	75
2951	" Minim Measure ..	40
2952	" " Pipette.....	40
2953	" Points, steel, best ..	30
2954	" " gold plated.....	45
2955	" " nickel-plated ..	50
2956	" " gold tips.....	75
2957	" " aluminium.....	75
2958	" " platinum ..	75
2959	" " extra long.....	50
2960	" Trocar.....	75
2961	Oil Stone, for sharpening points, each.....	25c. to 1 00
2962	Reamers for cleaning out Needles ..	10
2963	Wire for needles, per bunch.....	05



2947



2948



2947-A

No. 17 same as Fig. 2917 (No. 3) except with 6 Tablet Bottles.



2949

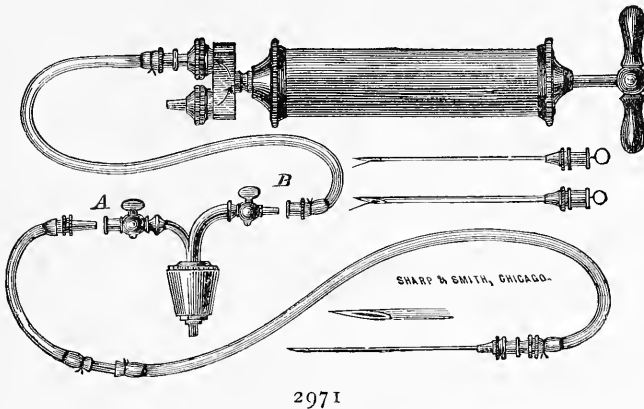
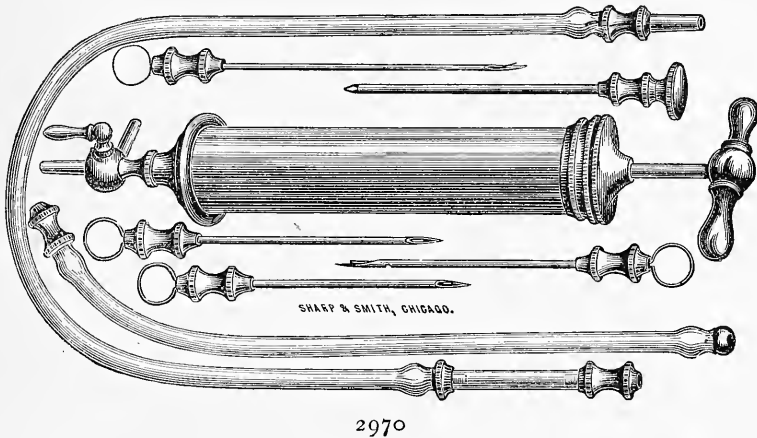
All instruments designated by a * are illustrated.

ASPIRATORS.

We recognize the fact, that it is of the UTMOST IMPORTANCE to have an "Aspirator" in working order just when needed, and on this account we are more than particular to have every instrument (in this line) leave our office in PERFECT CONDITION.

FIG.

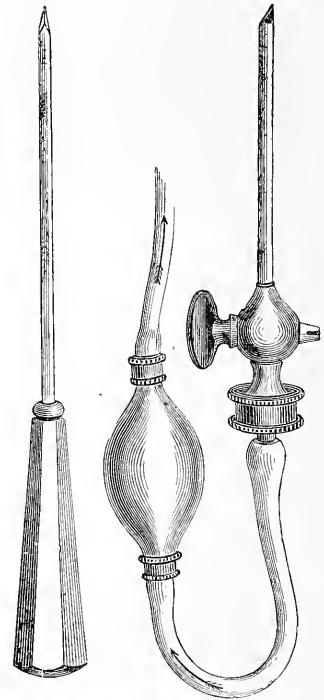
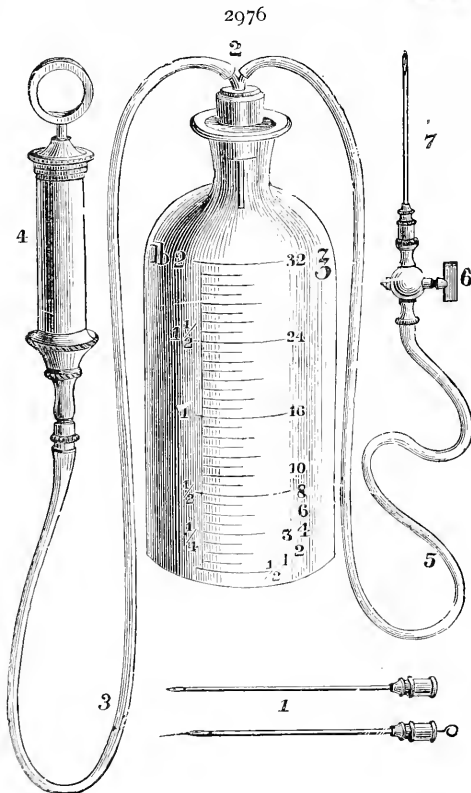
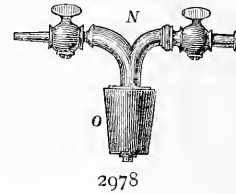
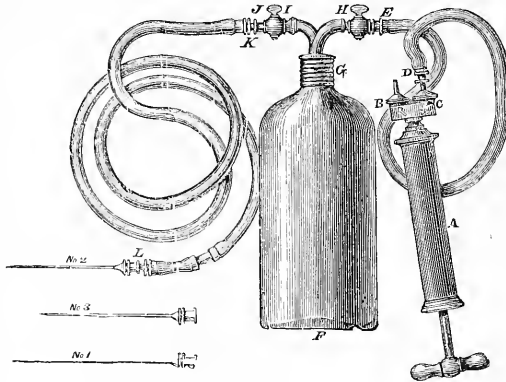
*2970	Sharp & Smith's No. 1, Aspirator.....	\$15 00
*2971	" " " 2, " French Pattern.....	10 00
2972	" " " 3, " with Trocars and Stop Cock.....	18 50
2973	Stomach Pump Attachment for Sharp & Smith's Aspirators.....	4 50



Instruments designated by a * are illustrated.

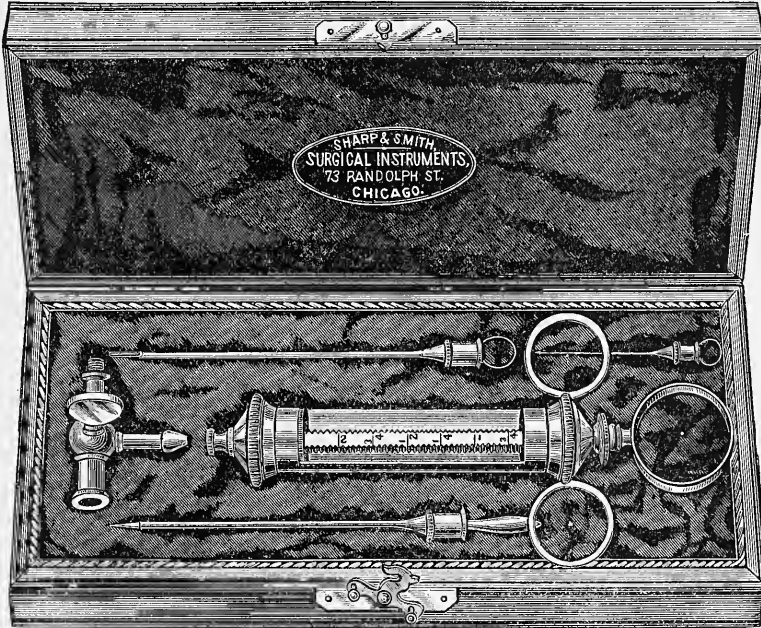
ASPIRATORS.

FIG.		
*2974	Sharp & Smith's No. 4 Aspirator, large	\$11 50
2975	" " No. 5 " small	9 75
*2976	Codman & Shurtleff's No. 1 Aspirator, in walnut case	12 00
2977	" " No. 2 " without bottle, in morocco covered case, with stopcock (to fit any bottle)	10 00
*2978	Stop Cock for C. & S.'s Aspirators—to fit any bottle	2 50
*2979	Flint's Aspirating Trocar, with Syringe	3 75



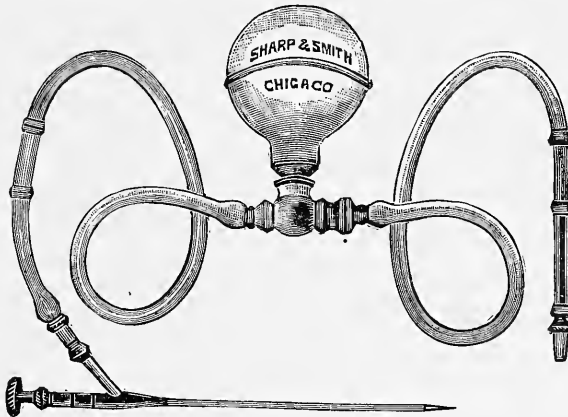
ASPIRATORS.

FIG.		
*2980	Sharp & Smith's Compact Aspirator.....	\$ 3 50
*2981	“ “ Pocket Aspirator, Hypodermic and Brandy Syringe Combined.....	4 00
2982	Sharp & Smith's Pocket Aspirator, etc, Syringe, same as above, without finger rings.....	3 00



2981

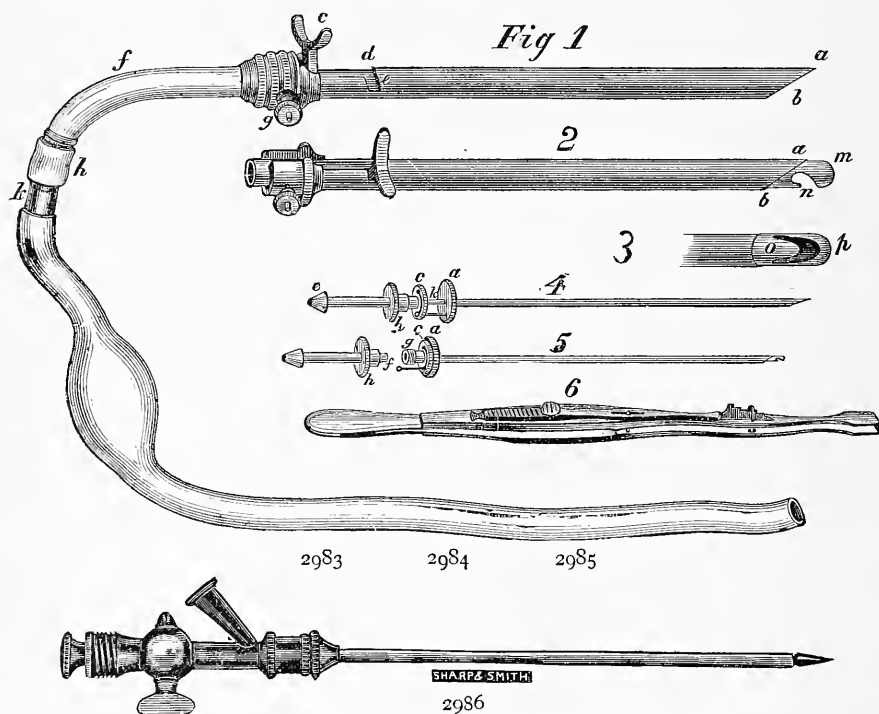
The above syringe will be found to be of the greatest importance to every practitioner. It is small, can be carried in the pocket or instrument bag, and in a case of emergency when a large "Aspirator" is necessary (and is not on hand), will be invaluable.



2980

ASPIRATORS AND TROCARS.

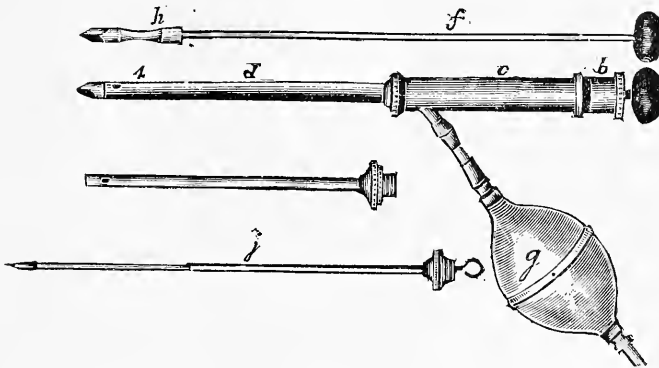
FIG.			
*2983	Fitch's Dome Trocar for Paracentesis Abdominis, 1, 2, 3, complete	\$10	50
*2984	" Aspirator Needles " " 4, 5.....	1	75
*2985	" Clamp Forceps " " 6.....	3	35
*2986	Aspirating Trocar with Stop Cock.....	2	75
2987	" " " " " gold plated.....	3	25
2988	" Needles, assorted lengths, "each.	1	25
2989	" " " " " nickel plated.....	"	85
2990	" Trocars, nickel plated.....	1	25
2991	Otis' Hard Rubber Aspirator	4	50
2992	Emmet's Aspirator.....	9	00
2993	English "	13	50
2994	Dieulafoy's "	30	00
2995	Excelsior " and Stomach Pump combined.....	15	00
2996	Dr. H. Landis Getz's Aspirating Trocar and Canula.....	6	75



DR. H. LANDIS GETZ' NEW IMPROVED COMBINED TROCAR AND CANULA AND ASPIRATING NEEDLE.

We take pleasure in presenting and recommending to the profession a New Improved Combined Trocar and Canula and Aspirating Needle, devised by Dr. H. Landis Getz. The object of this instrument is to overcome the disadvantages of the common trocar and canula and common aspirating needle and yet to preserve the advantages and applicabilities of both, and at the same time combining the instruments in a neat and compact manner at reasonable expense. The advantages of the instrument will readily suggest themselves, and we will therefore give only a brief description and a few suggestions concerning its application.

ASPIRATORS AND TROCARS.



2996

a. Button which screws on trocar rod *f*, which is used as a handle, and also prevents the trocar from passing too far through the canula. To rod *f* are attached the three largest sizes of trocar tips; *h*, one of the tips are screwed on the rod *f*; *c*, handle portion of canula to which are attached by screw-joint the largest sizes of canula and the smaller or aspirating size *j*; *e*, represents the outlet from handle portion of canula; *i*, a short piece of glass tubing through which fluid is seen to pass; *g*, a reversible bulb which may be used for exhausting or injecting; *b*, cap attaching to *c*, by screw joint into which is placed a small rubber disk, cut from rubber bandage material, through which pass the exploring trocar or the larger trocar rod; *a*, one of the openings, of which there are several in the end of each canula, to allow the fluid to pass, which will aid in determining the entrance of the sac; *j*, exploring canula with trocar needle passed through it. This needle is of the same length as the parts *f* and *h* combined, and when *f* is used the needle is entered in the opening in *b* passed through the small rubber disk and then passed on through *c* and *j* until the needle point projects about one-eighth of an inch beyond the canula.

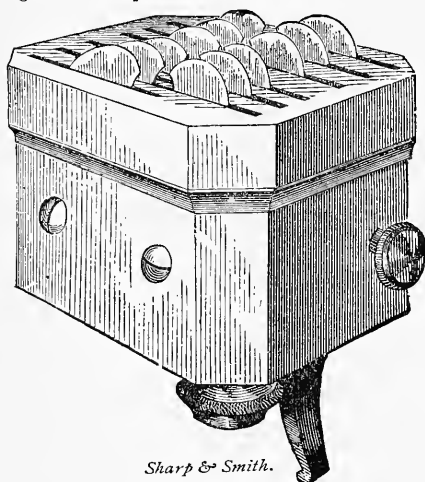
The instrument may now be used in the same manner as when used for exploring. The sac having been evacuated, the trocar point is pushed forward into the canula just beyond the attachment with *c*—the instrument still in the cavity, the bulb is now reversed, the trocar is again withdrawn past *c* and the cavity injected. The manner of again evacuating will readily suggest itself.

Should it be desirable to leave a drainage tube within the sac, detach the handle portion of canula *c* from the canula proper, leaving the canula still in the sac, and pass the tube through canula into sac and now withdraw canula, leaving the tube dipping into the sac. The instrument is novel, neat, compact, inexpensive and complete.

NOTE.—A convenient and perfect female catheter is formed by the parts *a*, *b*, *c*, *e* and *f*, and the largest sized canula and a catheter tip (instead of trocar tip) attached to *f*. If the bladder is to be injected or washed, the instrument is used as when washing any other cavity. To use the instrument for washing or injecting the male bladder use parts *b*, *c*, *e*, *i* and *g*, with such size of canula attached to *c* as the end of will slip tightly into the opening of the male catheter.

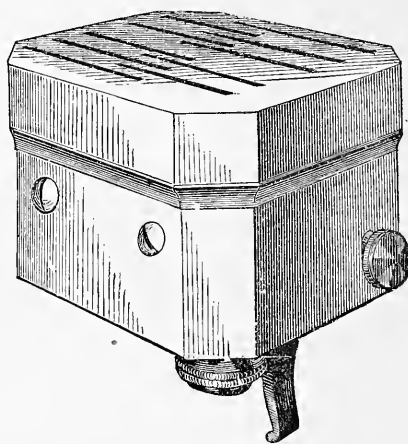
CUPPING INSTRUMENTS.

FIG.			
3000	8-blade	Scarificators.....	\$3 00
*3001	10 "	plain Scarificators.....	3 00
*3002	10 "	reverse ".....	3 75
*3003	12 "	plain ".....	3 50
*3004	12 "	reverse ".....	4 50
*3005	Cupping Case complete.....		5 50
3006	Plain Glass Cupping Cups.....per doz.		1 00
*3007	"	" " " with Rubber Bulb.....each.	50
3008	All Rubber Cupping Cups		75
3009	Cupping Cup Caps.....		60
3010	"	Pump, metal, nickel plated.....	1 85
3011	"	" " " with Stop Cock.....	3 00
3012	Stop Cocks for Cupping Cups.....		60

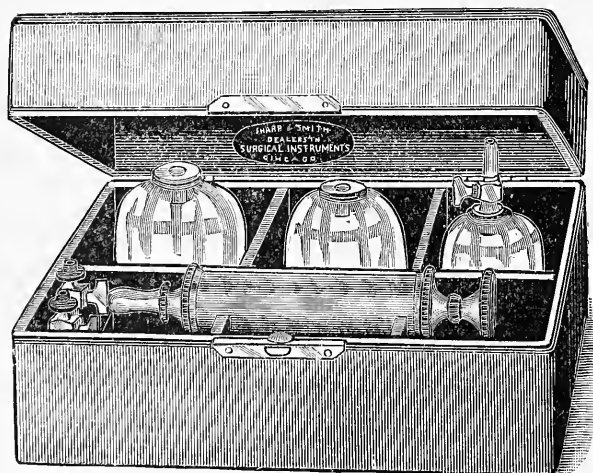


Sharp & Smith.

3001-3003



3002-3004



3005

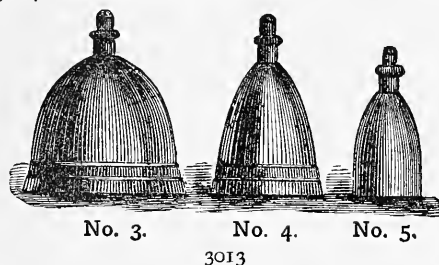
This case contains : Three Glass Cups, mounted ; three Stop-cocks, and fine nickel plated Pump. In morocco case, velvet lined.



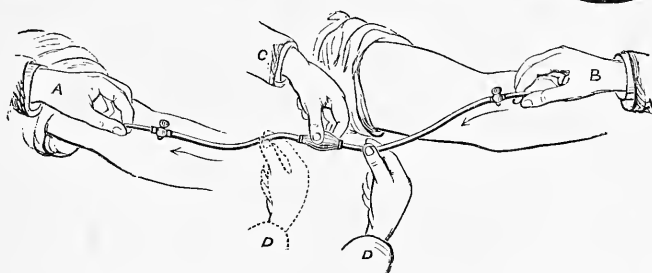
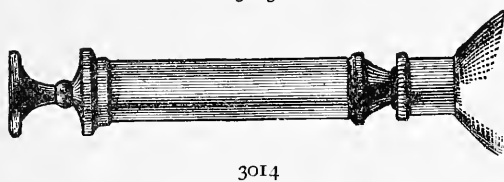
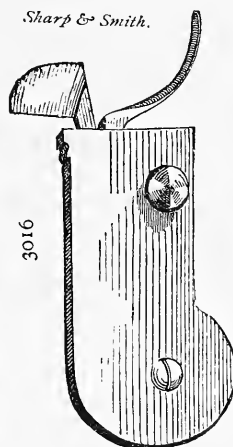
3007

CUPPING INSTRUMENTS.

FIG.		
*3013	Knapp's Glass Cupping Cups with Rubber Rim, No. 1 . . . each.	\$1 25
*3013	" " " " " " " " 2 . . . "	1 00
*3013	" " " " " " " " 3 . . . "	75
*3013	" " " " " " " " 4 . . . "	75
*3013	" " " " " " " " 5 . . . "	50
*3014	" Metal Cupping Pumps	1 00
*3014	" Japan " "	75
*3015	Thomas' Hard Rubber Dry Cupper	1 50
*3016	American Spring Lancets	1 25
3017	German " "	50
3018	" silver " "	1 75
3019	" " " with 5 blades	2 00
3020	Tiemann & Co.'s Spring Lancets	2 50
*3021	Reece's Artificial Leech	3 50
3022	Herteloup's " "	6 00
3023	Smith's " "	3 50
*3024	Aveling's Transfusion Apparatus	6 00
3025	Fryer's " "	4 85
3026	Garrigue's Mediate Transfusion Apparatus	3 00
3027	McDonald's " "	4 50



Sharp & Smith.



VACCINATING INSTRUMENTS.

FIG.			
3028	Spear-point Vaccinating Lancet.....	\$	60
*3029	Thumb " "		50
*3030	Vaccinating Lancet and Comb.....		75
3031	U. S. Army Vaccinating Instruments.....	I	85
3032	Vaccinating Trocar.....	I	85
3033	" Comb, plain metal (6 needles).....		20
3034	" Scarifier, plain.....		75
*3035	Cyrus Edson's new Vaccinator.....	I	50

A NEW VACCINATOR.

BY CYRUS EDSON, M. D., New York.

The little instrument shown in the cut has been in the hands of members of the vaccinating corps of the Health Department of New York during the past year, and has proved very useful. It consists of a needle holder, similar to those used by microscopists, having two jaws that are approximated by means of a sliding ring. These jaws are funnel shaped at their extremity in order to facilitate the introduction of the needle, which is inserted to the depth of three-fourths of its length.

The handle is of hard rubber, with hollow space sufficiently large to hold twenty-five No. 5 needles. To use the instrument the operator unscrews the cap, selects a needle, fixes it in the jaws, and proceeds to scarify. Having performed the operation, the needle is removed and thrown away.

The scarification made by the needle will be found to be better for the purpose in question than that made by the lancet—the skin and vessels being



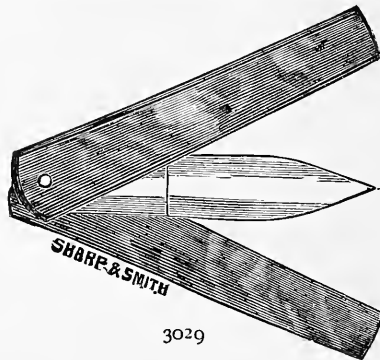
torn, and not cleanly cut. The result is that a larger absorbing surface is exposed and just sufficient blood and serum exuded to dissolve the virus from the quill.

The instrument can be used more rapidly than the lancet, if time is taken to cleanse the latter after each vaccination is performed.

The cost of needles is only five or six cents per paper of twenty-five.

The device was contrived partly to meet the objections to vaccination made by parents of children attending school, on the ground that in the use of the lancet disease was liable to be transmitted from child to child. Indeed, one case of skin disease was alleged to have been caused in this manner; investigation, however, disproved it.

The popular prejudice against the lancet is deeply rooted, and is best and easier overcome by the new vaccinator.



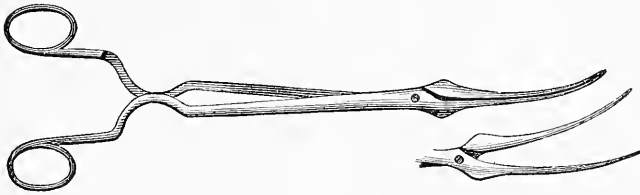
GYNÆCOLOGICAL—UTERINE DILATORS.

FIG.

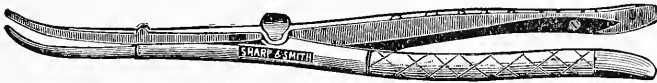
*3050	Atlee's Uterine Dilator.....	\$ 2 25
*3051	Nott's " "	2 25
3052	Ady's " "	1 25
*3053	Ellinger's " " with Ratchet.....	7 50
3053-A	" " " plain.....	6 50
*3054	Goodell's modification of Ellinger's Uterine Dilator.....	7 50
3055	Baer's " " " " " "	7 50
*3056	Hobbs' Uterine Dilator.....	3 75
*3057	Wylie's " "	3 00
*3058	Wilson's " "	4 50
*3059	Miller's " "	7 50
3060	Schweig's " "	7 50
*3061	Nelson's " "	4 00



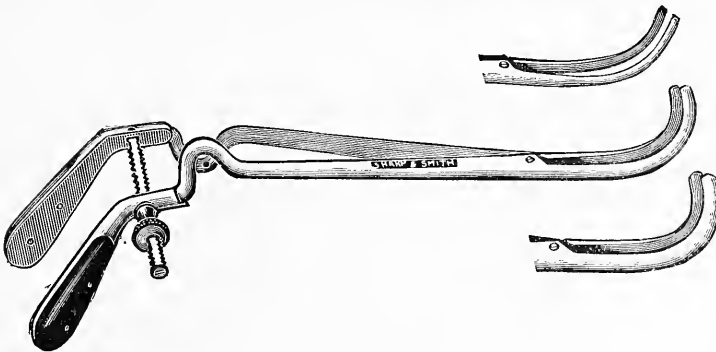
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3051



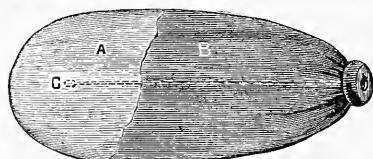
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3058

All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—UTERINE DILATORS.



3056



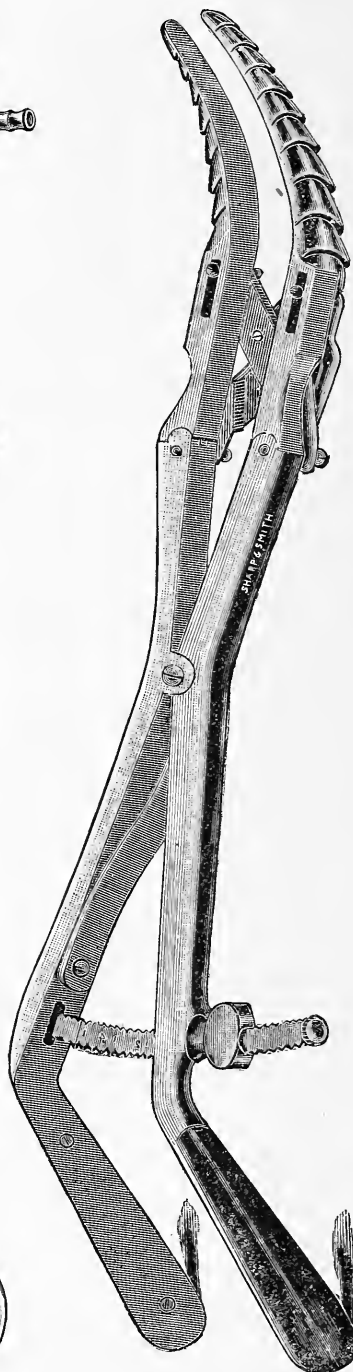
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3061



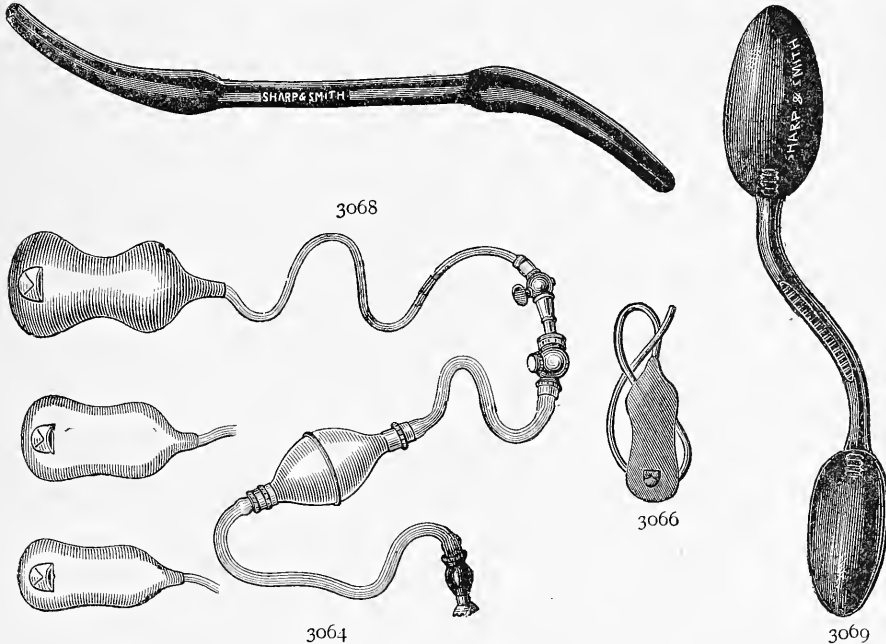
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3054

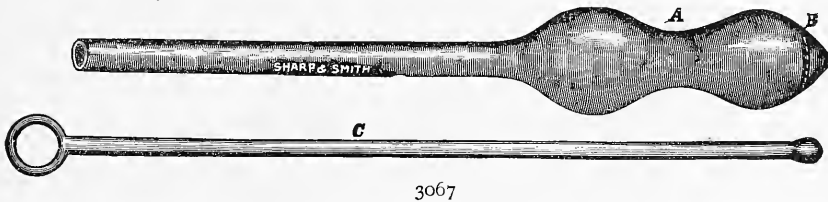
GYNÆCOLOGICAL—UTERINE DILATORS.

FIG.							
3062	Barnes' set of 3	Uterine Dilators.....	\$	1	50		
3063	" " 3	" " with Stop Cock.....		2	00		
*3064	" " 3	" " and Syringe....		3	25		
3065	" single	" " " "		1	00		
*3066	" " " "				65		
*3067	Cowan's modification of Barnes' Uterine Dilator.....			1	85		
*3068	Hanks' set of 10 small	" Dilators.....		3	75		
*3069	" " 10 large	" "		4	25		



A NEW MODIFICATION OF BARNES' DILATOR.

BY GEORGE COWAN, M. D., Danville, Ky.



In the Barnes' dilator the pocket into which the probe is inserted for introducing the bag serves as a serious obstruction to its easy introduction, besides being placed externally and to one side of the bag—a very unsuitable point upon which to direct the force which is to guide and push the dilator into its place in the canal. Furthermore, the distal extremity is unnecessarily blunt or flat.

The modification which I have had made, and which the accompanying diagram will serve to illustrate, is circular on transverse section throughout its length, and has a tapering distal extremity for its easy introduction into the cervix uteri. The probe which accompanies it is a small brass rod, having a

GYNÆCOLOGICAL—UTERINE DILATORS.

small button shaped extremity, and is introduced through the gum tube to the inside of the bag, and finally lodged in the center of the extremity, thus enabling the bag to fold and adjust itself neatly and closely around the probe during its passage through the cervix and along the canal, while the force is applied in the most advantageous position, *i. e.*, inside the dilating bag.

FIG.	
*3070	Dr. Malcolm McLean's modification of Barnes' Uterine Dilator. \$ 1 85
*3071	" " Forceps for introducing above..... 3 35
*3072	Dr. Bernay's Utero Tractor..... 4 50

THE MANAGEMENT OF PLACENTA PREVIA.

BY MALCOLM MCLEAN, M. D., New York.

* * * There are several objections to the usual form of Barnes dilators which are worthy of notice, and it is especially to the correction, as far as possible, of these faults, that I wish to call attention. The instruments, modified, as I shall demonstrate, seem to fulfil all the indications above alluded to without the attendant disadvantages.

The usual fiddle shaped bags are inserted by means of a sound introduced into the little pouch, which is situated, necessarily, at an awkward point on the surface of the bag. This pouch, besides being liable to be punched through in a somewhat dangerous manner in the attempt at introduction, is a convenient receptacle for septic matter. And I have always felt misgivings in passing such a one into the uterine mouth. That the operation of inserting an ordinary Barnes' dilator in the ordinary manner is often a tedious performance, I think those who have most frequently used them or have seen them used, will agree.

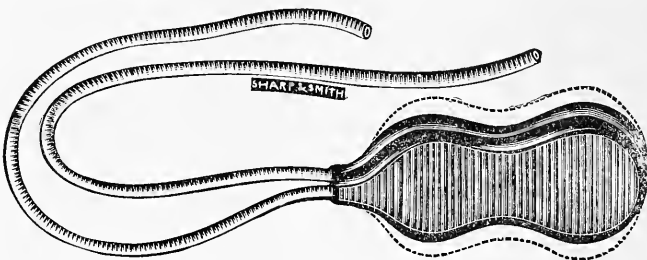
I have more than once seen a skillful accoucheur baffled for fifteen or twenty minutes in this simple manœuver. To facilitate matters, Dr. Cowan of Danville, Ky., has offered a modification of these bags, in which there is no superfluous pouch, the instrument being made more cylindrical, and the distal end reinforced so as to allow firm pressure of a rod which is passed through the tube into the cavity of the dilator.

There is one objection to Dr. Cowan's instrument as it is presented, *viz.*, necessity of withdrawing the inserting rod before distension of the bag is commenced. This renders it liable to become displaced from the os uteri before it

is expanded sufficiently to retain it. Again, there is the very serious objection to all the dilators described, in their use in cases of placenta previa, that they have to be graduated in sizes to suit the dilating cervix.

In exchanging from a small one to a larger there is liability to some hæmorrhage, and the operation of insertion has to be gone through a second or third time. Anything we may do to avoid unnecessary manipulation is desirable, especially in instrumental manœuvers.

I have therefore devised a modification of Dr. Barnes' dilator, by which the operation of dilation, etc., by their use, is easily accomplished without the disadvantages alluded to. As will be seen at a glance, it is a duplication of the

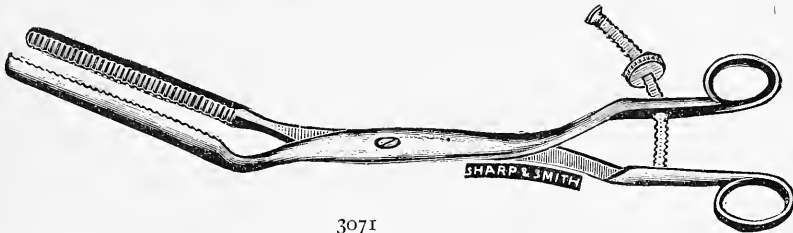


3070

GYNÆCOLOGICAL—UTERINE DILATORS.

bag and tube, so that one side may be distended independently of the other, thus requiring but one insertion to get a very extensive dilation. These bags are made as smooth as possible, have no extra pocket, and are easily and quickly inserted by means of a pair of somewhat curved forceps, and are held *in situ* until sufficiently distended to retain themselves within the grasp of the cervix.

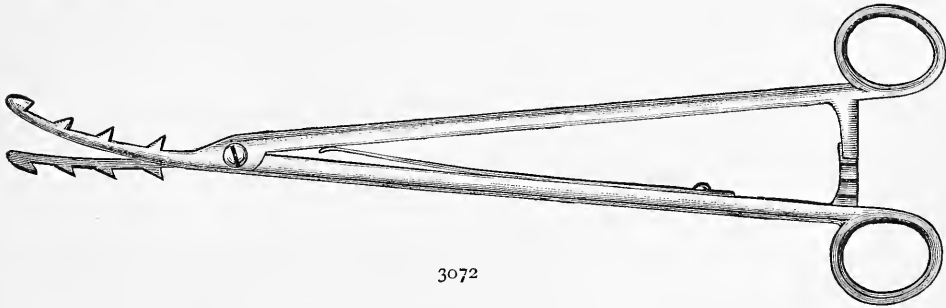
Any one who will use this means of inserting the water bags will be impressed with the advantage gained over other methods. In placenta previa time is exceedingly valuable, and this instrument renders the operation more valuable by being *promptly* accomplished. I have generally found one size all that is required in dilating the cervix, so that *one* insertion has sufficed to complete the necessary expansion. They are easily cleansed, are very strongly made, and there need be but two sizes used. I have found them also very valuable in the induction of labor for eclampsia, and I know of *no other means which will accomplish delivery so safely and quickly*. The objection made by some to India rubber dilators, that they are "apt to be found rotten just when needed," is scarcely worthy of notice. Because, in the first place, when well made and preserved, they will last for many months. (I have used one over two years.) And second, they may be obtained new on order at the better instrument makers of the cities.



3071

The largest size I have found useful as a vaginal dilator or colpeurynter. For expanding this instrument I always used carbolized hot water. The pressure made by it is very powerful, and they should be slowly injected; *one* side being fully distended first, and as soon as the grasp of the cervix begins to relax the other tube is attached to the syringe and very slowly filled. In this manner *continuous dilatation with complete occlusion of the bleeding os* is accomplished, giving us most valuable aid in the management of placenta previa.

I ought to make mention of Tarnier's dilator, which consists essentially of a rubber bulb, which is carried *through* the os *into* the uterine cavity, and being distended to about the size of a large English walnut, is left to excite uterine contractions. This instrument will seldom be useful, as the larger instruments may generally be introduced without difficulty by the means above described. * * *

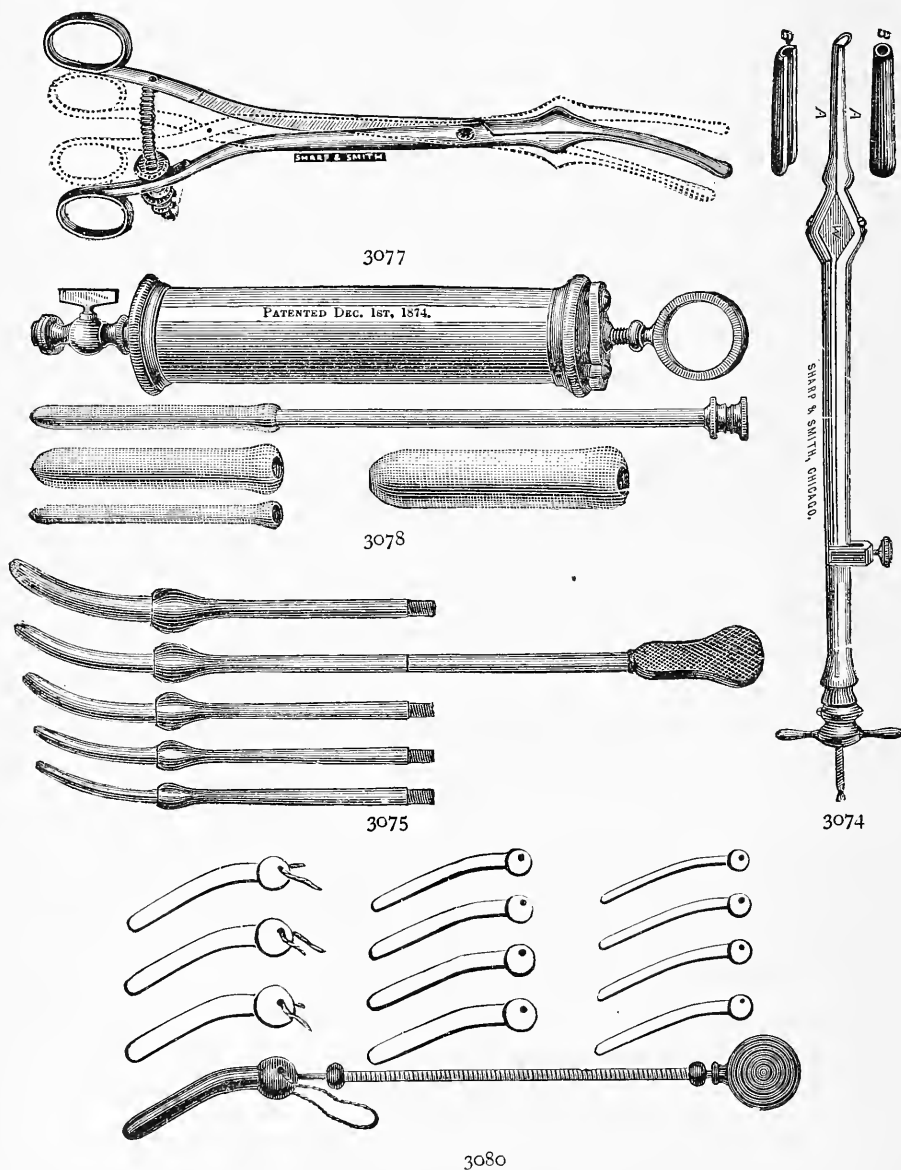


3072

GYNÆCOLOGICAL—UTERINE DILATORS.

FIG.

3073	Thomas' Uterine Dilator.....	\$ 3 50
*3074	Hunter's " "	10 50
*3075	Peaslee's " " per set.....	5 00
3076	Seimon's " " (7 sizes).....	each 1 00
*3077	Palmer's " "	4 00
*3078	Molesworth's Uterine Dilator.....	13 50
3079	Mansfield's Electric Uterine Dilator.....	5 00
*3080	Simpson's Set of " "	5 00

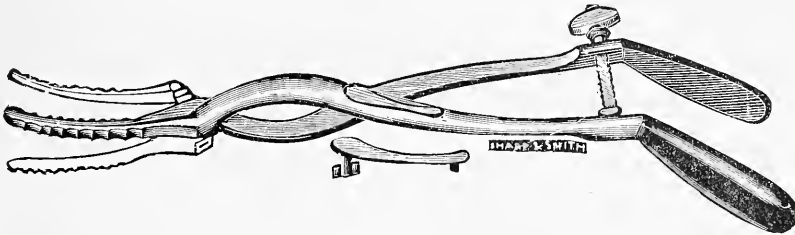


GYNÆCOLOGICAL—UTERINE DILATORS.

FIG.		
*3081	Sims' New Blade Uterine Dilator.....	\$9 00
3082	Seeley's " "	2 00
3083	Scanzoni's " "	7 50
3084	Priestley's " "	7 50
3085	Emmet's Water " "	1 50
3086	" Sponge " "	1 85
*3087	Dr. Wm. Wm. H. Wathen's (Louisville, Ky.) Uterine Dilator ..	6 00
*3088	Solid Elm Tents, straight.....	per doz. 1 00
*3089	" " curved.....	" 2 00
*3090	Hollow " " straight.....	" 1 50

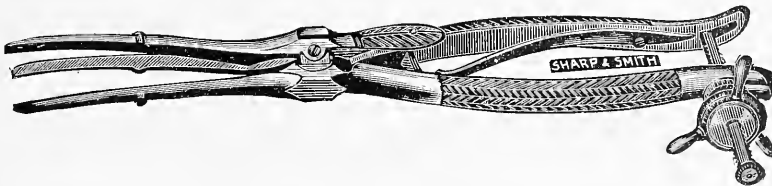
UTERINE DILATOR.

BY WILLIAM H. WATHEN, M. D., Louisville, Ky.

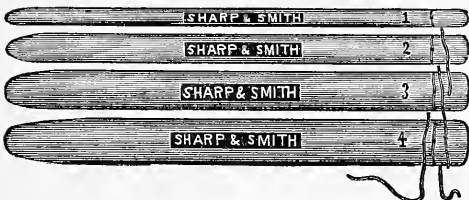


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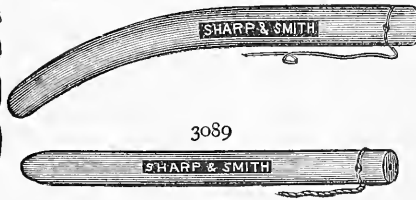
This dilator has been much improved, and to its superior qualities has been added a principle that makes it as perfectly aseptic as it is possible to have any surgical instrument. The blades are held together by a modified French lock that admits of the instrument being separated into its different parts in a few seconds, so as to be easily cleaned and made aseptic. This is the only dilator that is made after this fashion, and as the handles are of vulcanized rubber, hermetically sealed over the steel, there is no place where it is possible to have poisonous matter retained after any reasonable degree of surgical cleanliness.



3081



3088



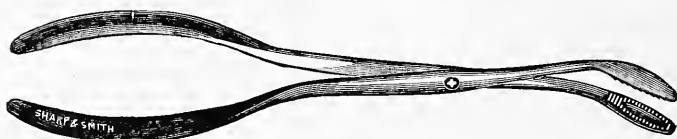
3089

3090

Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—UTERINE DILATORS.

FIG.					
*3091	Cervical Elm Plugs or Tampons.....	each	25c	to	50
3092	Sponge Tents, best quality, carbolized.....	per doz	\$	1	00
3093	“ “ “ “ “ curved.....	“		1	50
3094	“ “ “ “ “ straight waxed....	“		1	25
3095	“ “ “ “ “ extra large	“		1	50
3096	Sea Tangle Tents, best quality solid.....	“		1	25
3096-A	“ “ “ “ “ hollow.....	“		1	50
*3097	Tupello “ “ “ solid.....	“		1	50
3097-A	“ “ “ “ hollow.....	“		2	00
3097-B	Tent Expeller.....				55
*3098	Dr. R. W. Wilcox's Forceps for introducing Uterine Tents			2	25
*3099	Elm Vaginal Plugs.....	each	30	to	60



3098

DR. R. W. WILCOX'S UTERINE TENT FORCEPS.

After considerable experience with the various forceps in use for the introduction of tents into the uterus, it was found that these instruments were faulty because of the construction of the jaws, or of the handle. The jaws were too long or too smooth, or of a bad curve; the scissors handles are also objectionable. In this instrument the proper length of the jaws was ascertained by experiment; they are made rough to take a firm hold upon the tent, and they are curved so that an unobstructed view of the tent itself and the field of operation is obtained. The handle is modeled after the very convenient ones in use upon the Collins needle holders, and the instrument can be taken apart to insure thorough cleanliness.



3091



3099



SHARP AND SMITH



3097

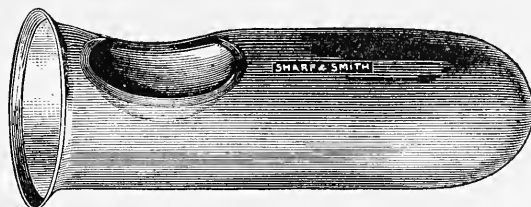


3097-B

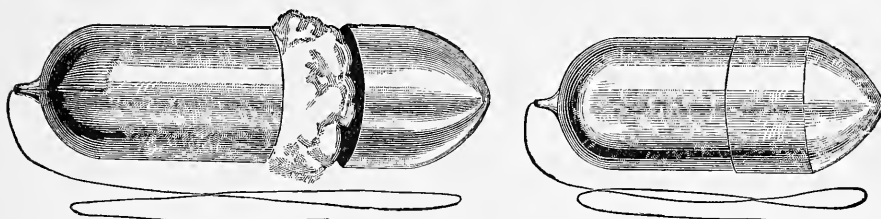
All instruments designated by a * are illustrated.

GYNÆCOLOGICAL.

FIG.		
3100	Sims' Glass Vaginal Dilators, set of six.....	\$ 2 25
*3101	“ “ “ “ “ “ “ “ each.....	40
*3101	“ Hard Rubber Vaginal Dilators.....	75
3102	“ “ “ “ “ “ set of six.....	4 25
*3103	Anderson's Vaginal Capsules, sizes 1, 2 and 3.....	per doz. 60
*3104	Thomas' Dry Copper.....	1 00
*3105	Reese's Artificial Leech.....	3 50
3106	Smith's “ “	5 50



3101



3103

ANDERSON'S ANTISEPTIC VAGINAL CAPSULES.

Size of Capsules.

Care should be taken to select the proper size for each patient. The small size No. 1 are generally used for young or unmarried women, and other cases where it is difficult to introduce a larger size. The medium size No. 2, are usually used for married women, and answer for most ordinary cases. The large size No. 3, is used in cases when it is desired to introduce more cotton, or when the parts are much relaxed.



3105



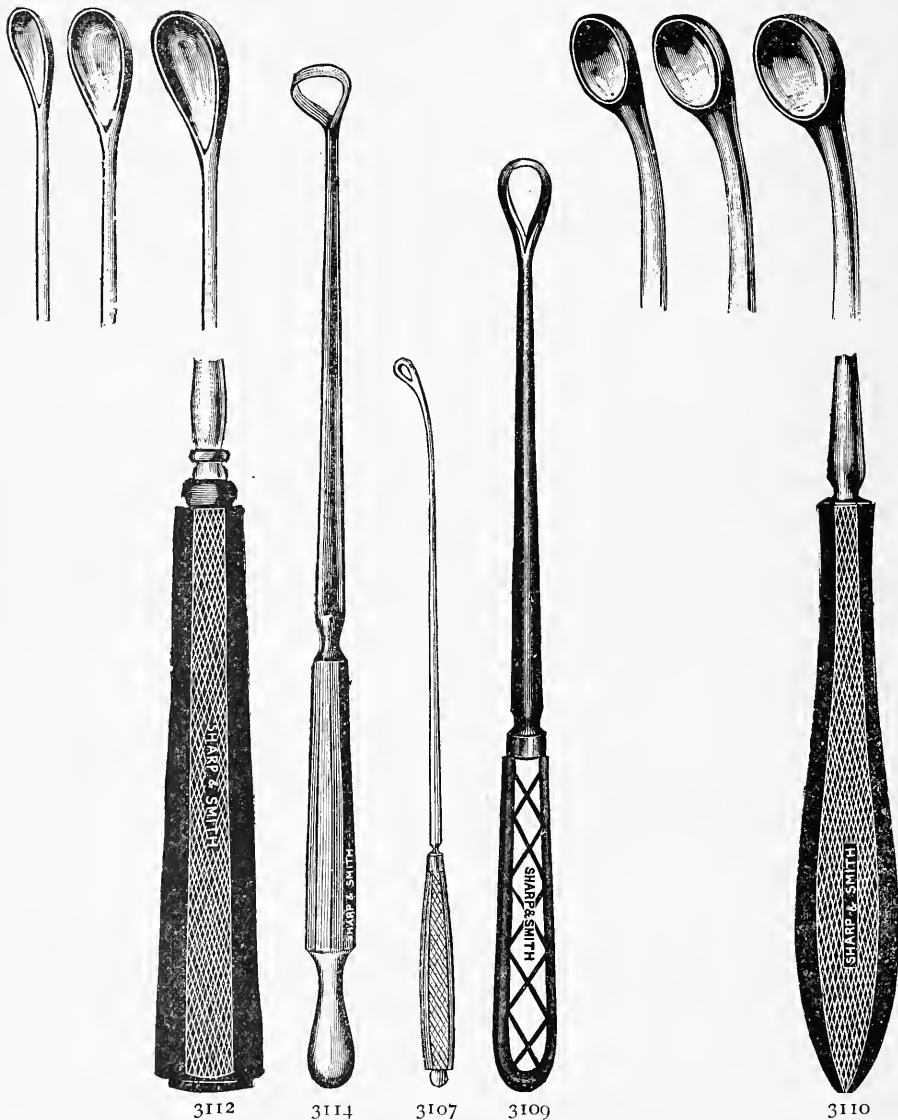
3104

All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—CURETTES.

FIG.

*3107	Sims' Sharp Uterine	Curette	.....	\$ 1 50
3108	" Blunt	"	.....	1 00
*3109	Thomas' Blunt	"	.....	1 00
*3110	Siemons'	"	.....each	1 75
3111	Peaslee's	"	.....	2 25
*3112	Skene's	"	.....	1 25
3113	White's	"	.....	1 50
*3114	Hoag's	"	.....	2 50



Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—CURETTES.

FIG.

*3115	Marcy's Uterine Curette.....	\$ 2 65
*3116	Burt's " "	2 65
*3117	Cheatham's " "	1 85
*3118	Thomas' Serrated Uterine Curette or Spoon.....	2 60
3119	Engelman's " "	2 25
*3120	Duke's " "	2 00
*3121	Wylie's " "	1 75
*3122	Byford's " "	1 00
*3123	Recamier's " "	1 50



3118



3117



3120



3119



3122



3121



3115



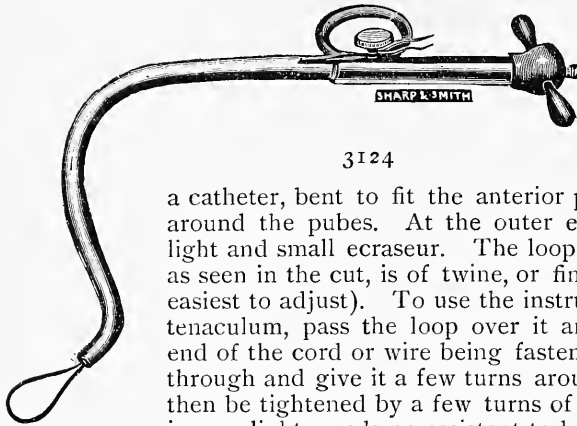
3123

All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—TOURNIQUETS.

FIG.		
*3124	A. Ady, M. D's. New Uterine Constrictor	\$3 75
*3125	" " " " Tourniquet and Expanding Curette	3 00
*3126	Dr. Chas. N. Dixon Jones' Rope Ecraseur for Hysterectomy...	11 25

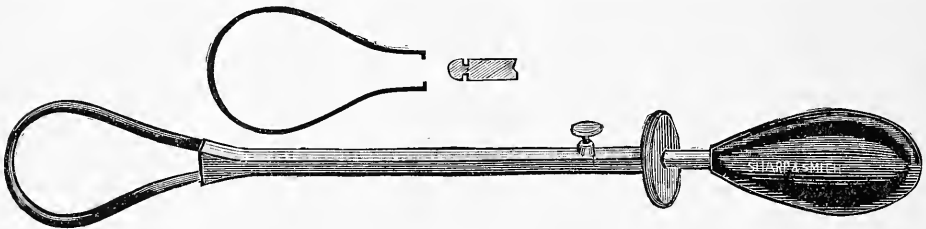
DR. A. ADY'S UTERINE CONSTRICTOR.



This is a simple and inexpensive instrument that answers the purpose of operations in trachealoraphy admirably, and is not in the way of the operator.

It consists of a canula like a catheter, bent to fit the anterior part of the vagina, and hook around the pubes. At the outer end is a screw like that in a light and small ecraseur. The loop that goes around the cervix, as seen in the cut, is of twine, or fine copper wire (which is the easiest to adjust). To use the instrument, grasp the os with the tenaculum, pass the loop over it and around the cervix. One end of the cord or wire being fastened to the peg, pull the other through and give it a few turns around the same; the loop can then be tightened by a few turns of the screw. The instrument is very light, needs no assistant to hold it, and is easily cleansed.

DR. A. ADY'S UTERINE TOURNIQUET AND EXPANDING CURETTE.



This instrument was originally used as an Expanding Curette, and roughly made of a piece of watch spring and a piece of catheter. It is also an improvement of the Emmet's.

It is light, small, and can be taken apart for cleaning by turning one set screw.

We should have several different lengths of watch-spring loops; for the tourniquet, the latter is better made light, but, when used as a curette, it should be of the strongest.

In doing Emmet's operation, place the loop around the cervix, tighten it by pushing on the flange to any desired tension, and fasten it by set-screw; it will not slip off or come loose during the operation. It is very easily controlled.

When it is desirable to use it as a curette, put in a heavier and shorter loop, and draw it back into the canula, when it is easily introduced into the uterine cavity, where it can be expanded by pulling on the flange with the thumb, to any desired extent. The piece of watch-spring adapts itself to the cavity, and, when rotated, will detach anything that may be attached in the shape of a secundine, without danger of lacerating the uterine walls.

All instruments designated by a * are illustrated.

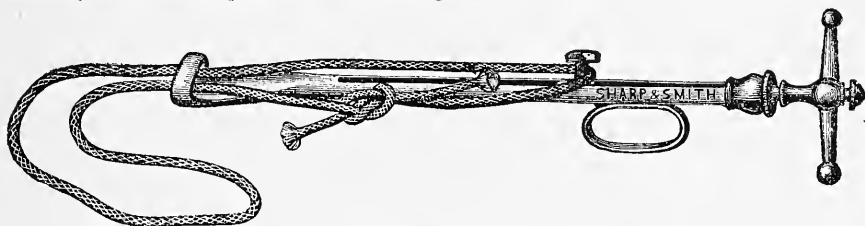
GYNÆCOLOGICAL—ECRASEURS.

A ROPE ECRASEUR FOR HYSTERECTOMY.

BY CHARLES N. DIXON JONES, M. D., Brooklyn.

The accompanying cut illustrates a temporary rope ecraseur which I exhibited at the December meeting of the Section in Surgery of the New York Academy of Medicine. Those who are accustomed to use the elastic ligature in hysterectomy or supra-vaginal amputation of the uterus for myoma, will find the operation greatly facilitated by the use of this instrument.

Some form of instrument for temporary compression of the pedicle during manipulation and enucleation, before the stump is permanently secured, is a necessity in order to prevent hæmorrhage.



3126

The elastic tourniquet is not so rapid nor so powerful in its action, and, furthermore, it is open to the more serious objection that it is apt to slip over the stump after the tumor is removed.

The rope ecraseur is a modification of Mr. Lawson Tait's well known clamp. It is made stronger and longer, being about fourteen inches in length so as to give a wide range of compression in the rope.

The rope is thoroughly boiled before use, so that it is not likely to slip. The instrument may be easily tightened during any stage of the operation. After it has accomplished its purpose the rope is cut, and the instrument is quickly removed and laid aside.

A COMBINED CURETTE AND DOUBLE CATHETER.

Fig. 3127.

BY GEORGE E. ABBOTT, M. D., New York.

I send herewith a drawing of a double catheter, with a curette attachment, which has been found to work well by my friends and myself in several cases. It consists of a fac simile of a double catheter lent to me by Dr. Edwin F. Ward, (of New York) which has unusually large fenestræ for the free return of the injected fluid, to which may be attached the curettes *D*, *E*, *F*, on the round end of the catheter *G*. The curettes are of various sizes, and dull or sharp as desired.

For curetting the anterior surface of the uterus or other cavity, screw the curette on as far as it will go, when it will be in position as at *D*, Fig. 1, or *A*, Fig. 2. For the posterior surface, give the curette a half turn, when its concavity will look backward, and will attack the posterior surface wall. For curetting the sides, unscrew the curette a quarter turn or a three-quarter turn, when it will have the position of Fig. 2, *C* or *B*. (See next page.)

GYNÆCOLOGICAL—ECRASEURS.—Continued.

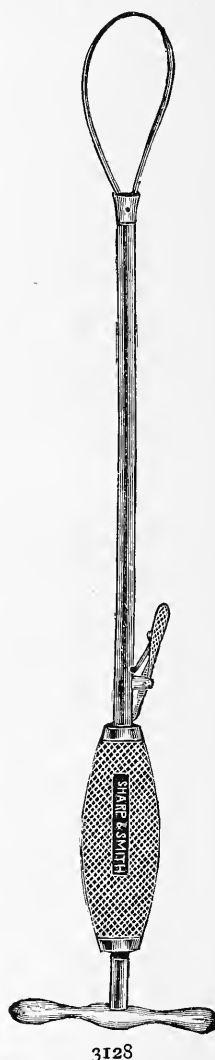
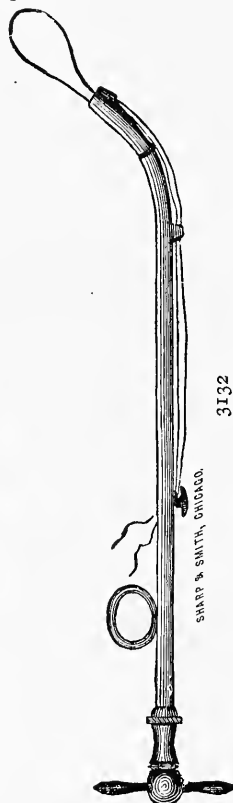
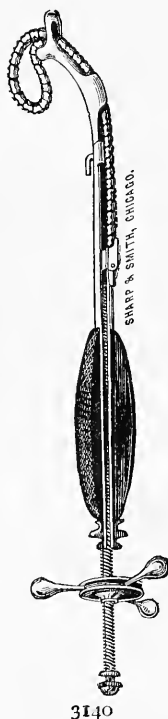
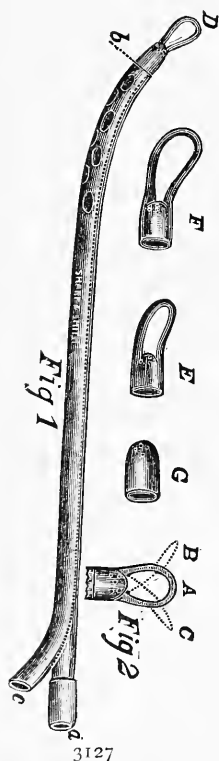
It will at first seem that, when placed in these positions, the curette would not attack its work, but would turn this way and that. That this is not the case can be demonstrated by curetting the sides of the hand as it grasps the instrument.

The curettes are attached by a fine thread and a long shoulder or tenon, as at *b*, and thus allow of the positions above indicated without loss of firmness.

In use, a Davidson's syringe or irrigating tube is attached to the catheter at Fig. 1, *a*, through which the antiseptic fluid passes, emerging at the little holes at the base of the curette *D*.

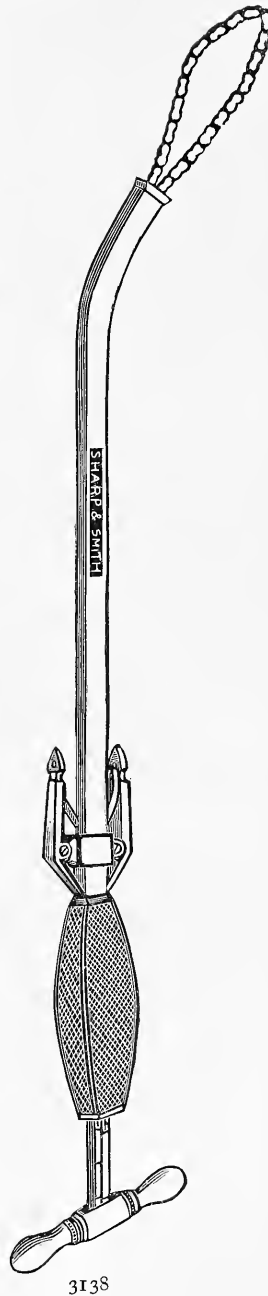
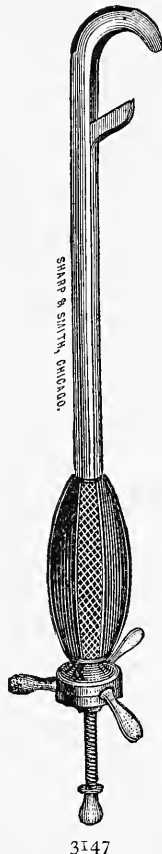
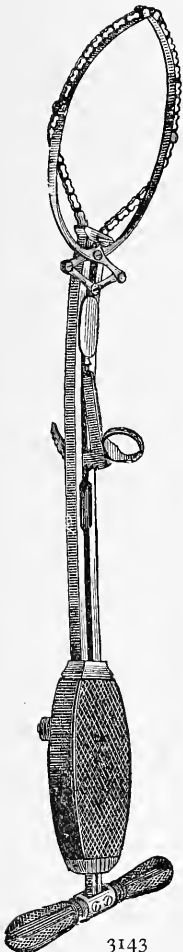
The return current passes through the large fenestræ below *b*, and out at *c*, into a white receiving vessel. (It will add much to the comfort of the surgeon to have a tube attached to *c*, thus avoiding wetting his hands, etc.)

The advantages gained are: 1. In making the parts thoroughly aseptic. The antiseptic fluid being allowed to run before entering the cervical canal, and during the time of operating. 2. The denuded surfaces are immediately covered by the antiseptic fluid before infection can possibly take place. 3. The detritus is immediately and fully removed. 4. The surgeon can see by the returns in his white receiving bowl what he is doing—fungosities, membrane, pure blood, or clear antiseptic fluid. 5. No bacteria are introduced, as in the use of the ordinary curette. 6. No fungosities or detritus remain to decompose.



GYNÆCOLOGICAL—ECRASEURS.

FIG.		
*3127	Dr. Geo. E. Abbott's Combined Uterine Curette and Double Catheter \$	4 50
3128	Emmet's Uterine Tourniquet	4 50
3129	Millers' " "	4 50
3130	Spohns' " " set of 7.	2 50
3131	Smith's Straight Wire Ecraseur	4 00
*3132	" Curved " "	4 00
3133	" " " " 2 points	5 00
3134	Braxton Hicks' " " 3 "	12 00
3135	Barnes' " " "	4 50
3136	Chassaignac's Small Straight Chain Ecraseur	10 50
3137	Chassaignac's Small Curved Chain Ecraseurs	11 00
*3138	Chassaignac's large Curved or Straight Chain Ecraseur	15 00



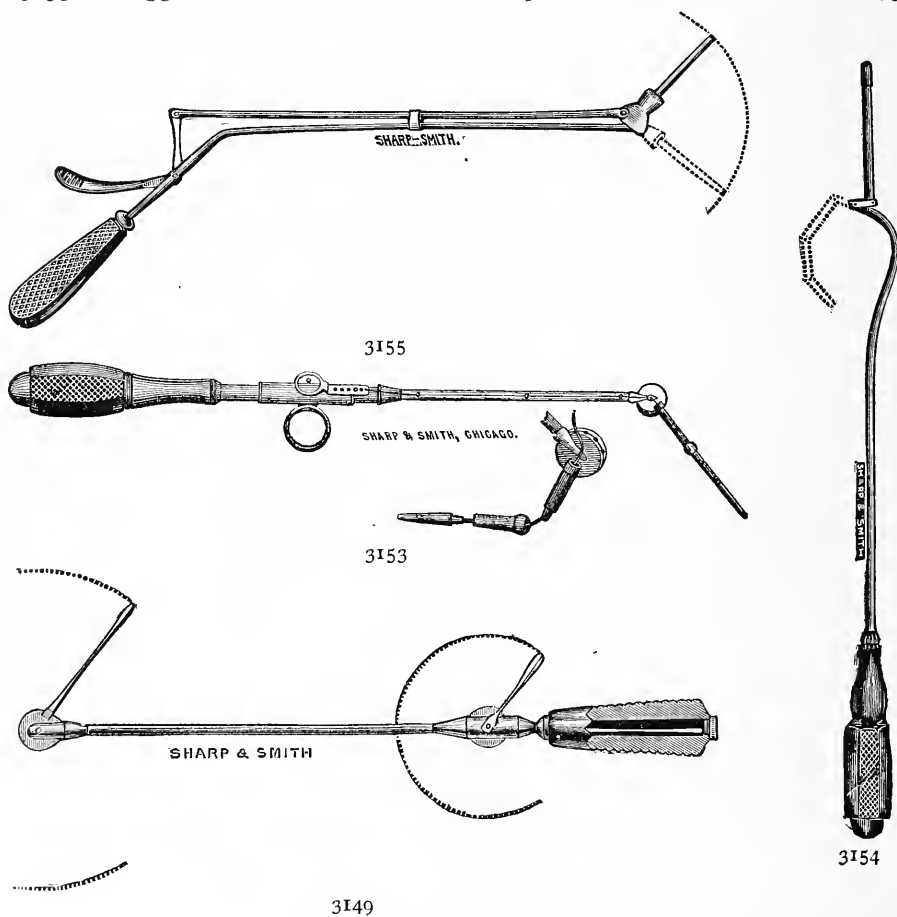
GYNÆCOLOGICAL—REPLACERS.

FIG.

3139	T. & Co.'s Short Chain Ecraseur.....	\$ 8 00
*3140	“ Long “ “	15 00
3141	Emmet's “ “	26 50
3142	Edwards' “ “	13 50
*3143	Sims' Porte “ “	26 25
3144	Nott's Rectilinear “	9 00
3145	Koeberle's “	5 00
*3146	Gooch's Polypus Canula, silver	2 00
*3146	“ “ “ plated.....	1 50
*3147	Aveling's Polypotome.....	6 00
3148	Simpson's “	2 00

UTERINE ELEVATORS.

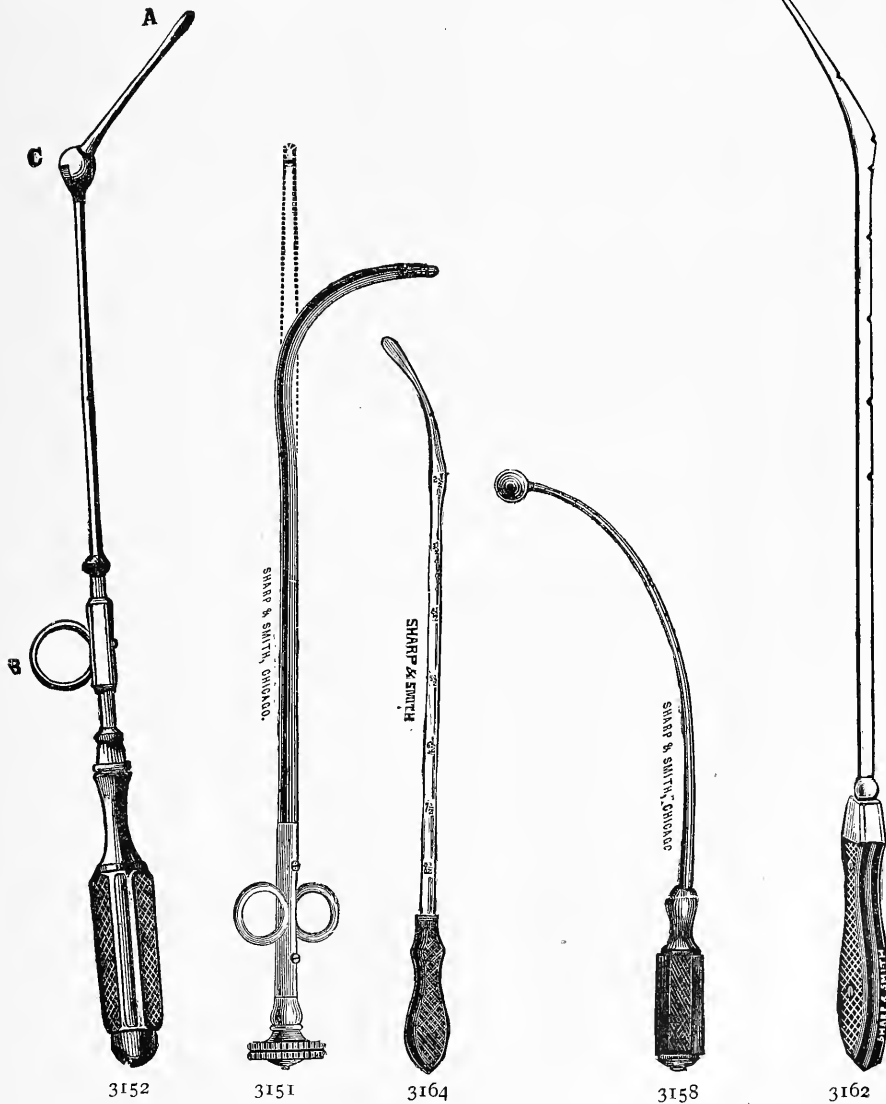
*3149	Ludlam's Uterine Elevator.....	\$ 4 50
3150	“ Modification of Guernsey's Uterine Elevator.....	1 50
*3151	Elliott's Uterine Elevator or Replacer.....	5 00
*3152	Sims' “ “	4 00
*3153	Noeggerath's Uterine Elevator or Replacer.....	6 75



GYNÆCOLOGICAL—ELEVATORS.

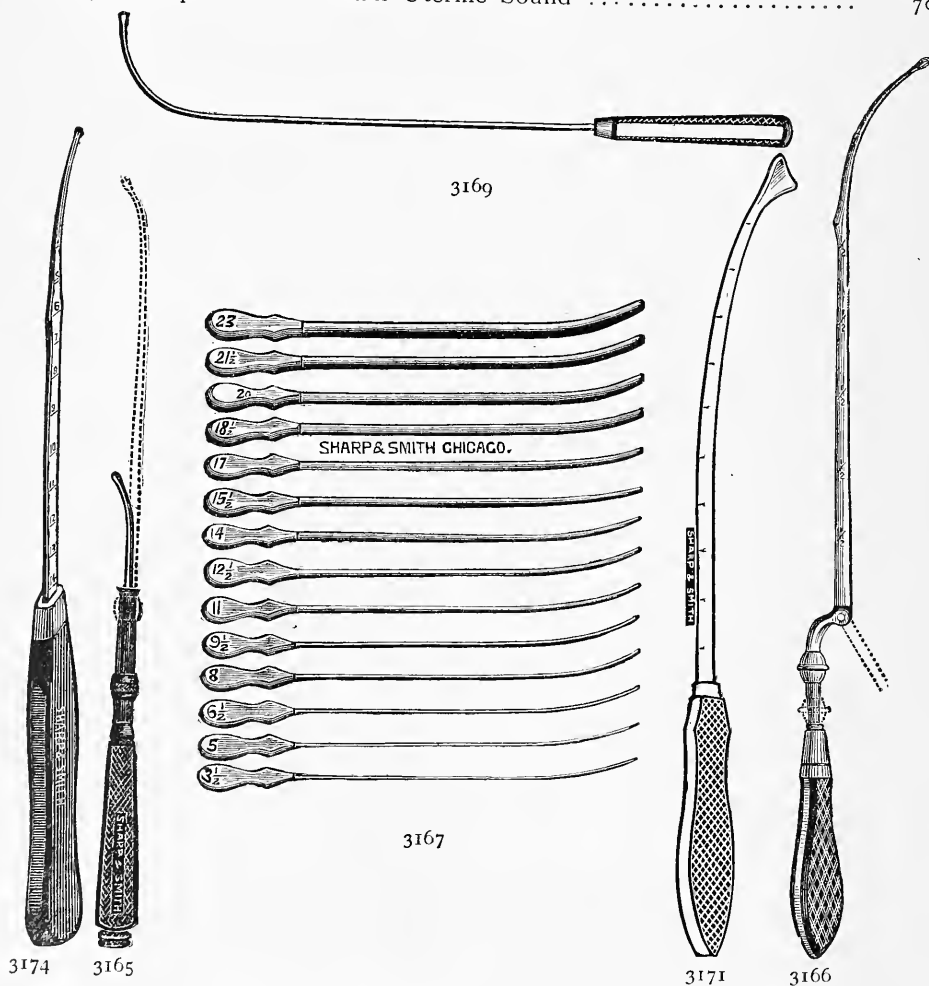
FIG.

*3154	Emmet's Uterine Elevator.....	\$ 3 25
*3155	Carroll's " "	2 60
3156	Wylie's " "	5 00
3157	Miller's " "	2 00
*3158	Guernsey's " "	1 00
3159	Skene's " "	5 25
3160	Gardner's " "	6 00
3161	White's " "	3 75
*3162	Simpson's Uterine Sound, graduated.....	1 00
3163	" " " not graduated....	1 00
*3164	" Plain Uterine Sound "	70



GYNÆCOLOGICAL—SOUNDS.

FIG.			
*3165	Simpson's Telescoping Uterine Sound.....	\$	2 25
*3166	" Folding " "	I	50
*3167	Pratt's Uterine Sound.....	each	75
*3168	Peaslee's Graduated Uterine Sound.....	I	50
*3169	Sims' Plain " "		70
*3170	" best " "	I	00
*3171	Cutter's " "	I	50
*3172	Jenks' " "	2	65
*3173	Fitch's " "	I	50
*3174	Hunter's Sliding " "	I	75
*3175	Gidden's " "	I	75
*3176	Cupped Uterine Sound for applications of ointment.....	I	50
3177	Buttles' set of Uterine Sound, Probes, etc.....	2	75
3178	Chapman's set of " "	3	50
*3179	Sharp & Smith's Plain Uterine Sound		70

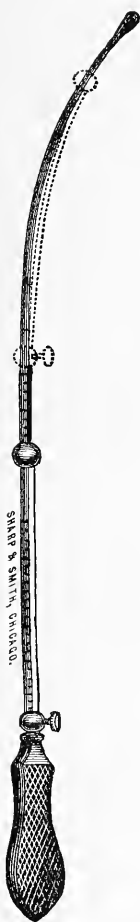


Instruments designated by a * are illustrated.

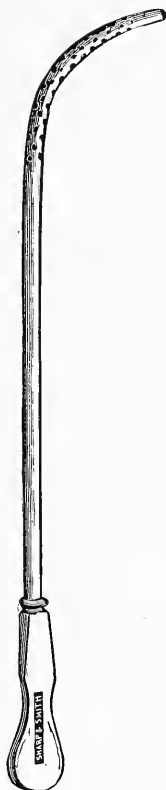
GYNÆCOLOGICAL—SOUNDS.



3172



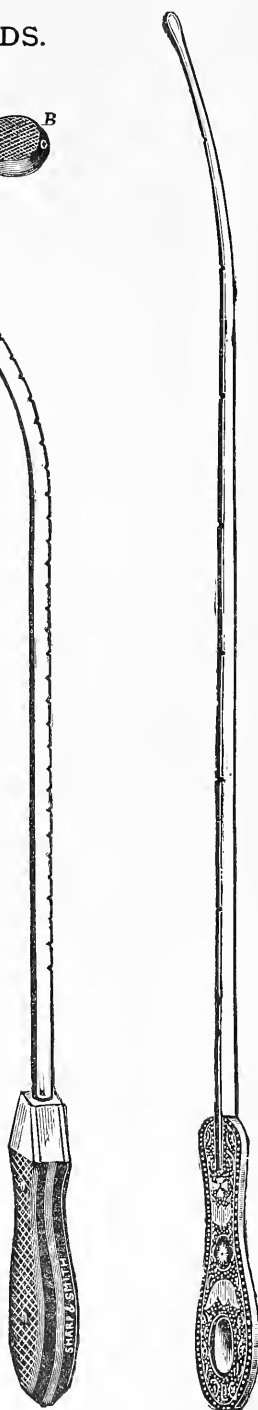
3175



3176



3170



3168



3179

GYNÆCOLOGICAL.

FIG.
*3180 Jennison's Exploring and Indicating Sound.....\$ 3 00

We have pleasure in calling the attention of physicians to this Instrument, containing valuable and remarkable qualities never before embodied in any for similar uses. In explorations of the uterine canal, and the diagnosis of malformations, growths, displacements, and, to a certain extent, as a repositor, there seems abundant reason for the belief that it is possessed of peculiar and positive value.

In its construction a number of light steel springs about fifteen inches in length are arranged upon and parallel to each other, united at their ends, and placed within a small metal tube, which surrounds them, with the exception of about three inches at each end. One end of this tube is covered with hard rubber of size and form to constitute a convenient handle, which allows the instrument to rotate easily within it, affording complete freedom of movement while being introduced; or it may be held above or below the handle if freedom is undesirable. The ends are each of about the diameter of Simpson's Sound.

The whole of the instrument, except the handle, being covered with a delicate flexible rubber sheath, is protected from the intrusion of fluids, and is in all respects complete and convenient.

Its construction being understood, it will be evident that any simple or single curve made in either of the flexible ends will be reproduced in an inverted form at the other; that an S, or double curve, in one end, will cause the other end to become straight; and that the instrument, while able to conform its distal extremity to the uterine canal, whether normal or abnormal, will reveal its real form at the proximal extremity.

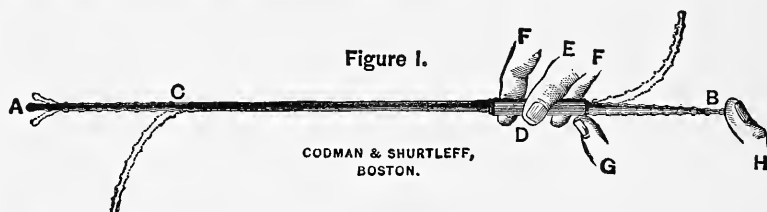


Fig. 1 is a representation, the dotted lines showing some of the almost unlimited number of positions of the ends attainable by manipulation. In the diagnosis of displacements by the use of flexible silver instruments, their form, when withdrawn from the os, indicates little or nothing, because of straightening; not so, however, with this instrument, which, at each movement of introduction or of withdrawal, indicates at the exposed end the form of the covered one.

In the use of any metal or partially flexible sound in a canal whose axis does not correspond exactly to its own, the sound overcomes resistance to its advancement by compelling the canal to assume its own shape; with the new instrument, on the contrary, an undulatory movement, or a slight increase of the curve already indicated, is obtained by gently manipulating its proximal end, so that it may be made to pass where other instruments would be excluded.

SUGGESTIONS RELATIVE TO USING. (See Fig. 1.)

Hold the instrument firmly by the handle D in the right or left hand, as may be most convenient, the thumb E being uppermost, the fingers F F underneath; introduce the end A, and, with the index finger and thumb of the other hand in the positions G H, it will be easy to manipulate the end B so as to obtain any required curve, combined with whatever of undulatory or worm-like movement may be useful while gently pressing the instrument forward.

GYNÆCOLOGICAL—PROBES.

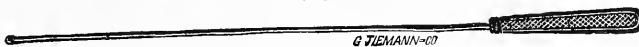
FIG.			
3181	Sims' Silver Uterine Probe.....	\$	85
3182	" " " " with shield.....	I	00
3183	" Aluminium Uterine Probe.....		90
3184	" " " " with shield.....	I	05
*3185	Emmet's Silver Uterine Probe.....		85
3186	" " " " with shield.....	I	00
3187	" Aluminium Uterine Probe.....		90
3188	" " " " with shield.....	I	05
*3189	Lente's Caustic Probe, one bulb.....	I	30
3190	" " " two "	I	65
*3191	Jenks' Uterine Probe.....	I	25
3192	Skene's " " and knife.....		75
3193	Whalebone Uterine Probe.....		40
3194	Lead " "		35
3195	Budd's Hard Rubber Uterine Probe.....		35
3196	Thomas' Flat Hard Rubber Uterine Probe.....	I	35
*3197	" " " " "		85
*3198	Emmet's Silver Uterine Applicator, with slide.....	I	00
3199	" Aluminium " "	I	00
3200	Mitchell's Uterine Applicator.....	I	75
*3201	Budd's Hard Rubber Uterine Applicator.....		40
3202	Thomas' " " " "	I	50
3203	Sims' " " " "	I	25
*3204	Turner's Uterine Applicator.....	I	10
3205	Dudley's " "	I	00
3206	" Whalebone Uterine Applicator.....		75
3207	Miller's Hard Rubber " "		35
3208	Nott's " " " "		75
3209	Rea's Uterine Applicator.....		75
3210	Recamier's Uterine Applicator.....	I	00
3211	Woodbury's " "		75
3212	Wylie's " "	I	50
*3213	" Cervical Protector.....		2 50
3214	Barker's Ointment Bougies.....	I	00
3215	Dixon's " "	I	00
*3216	Lallemand's Porte Caustic.....	3	00
3217	Gross, " "	3	00



3189



3191



3185

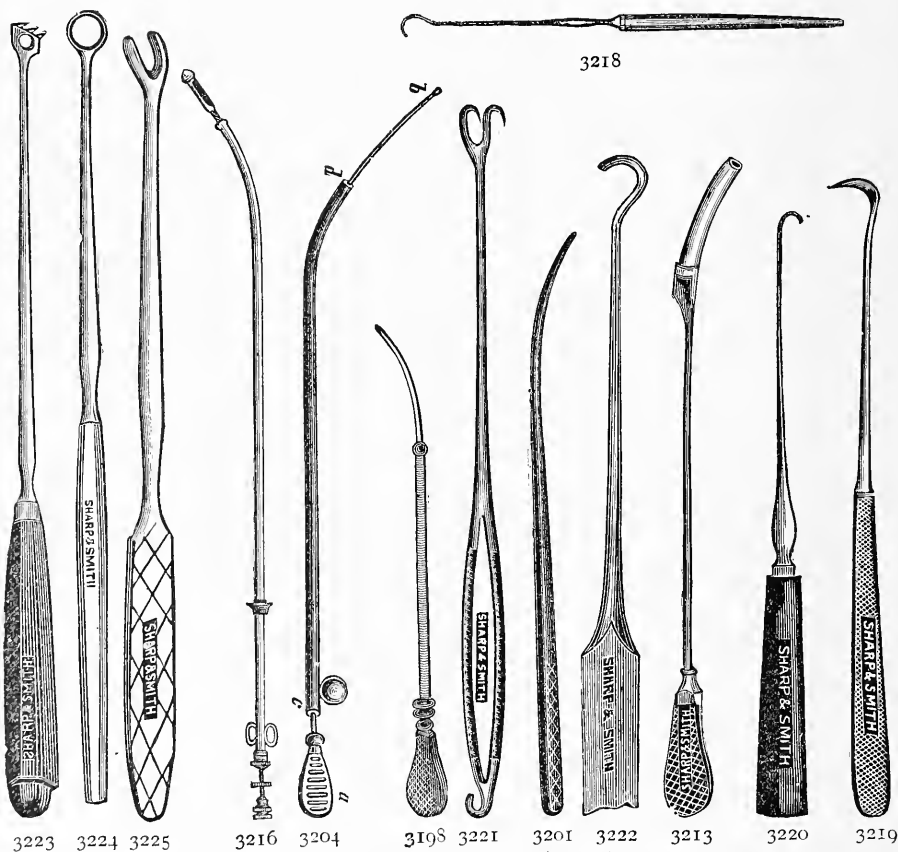


3197

Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—HOOKS.

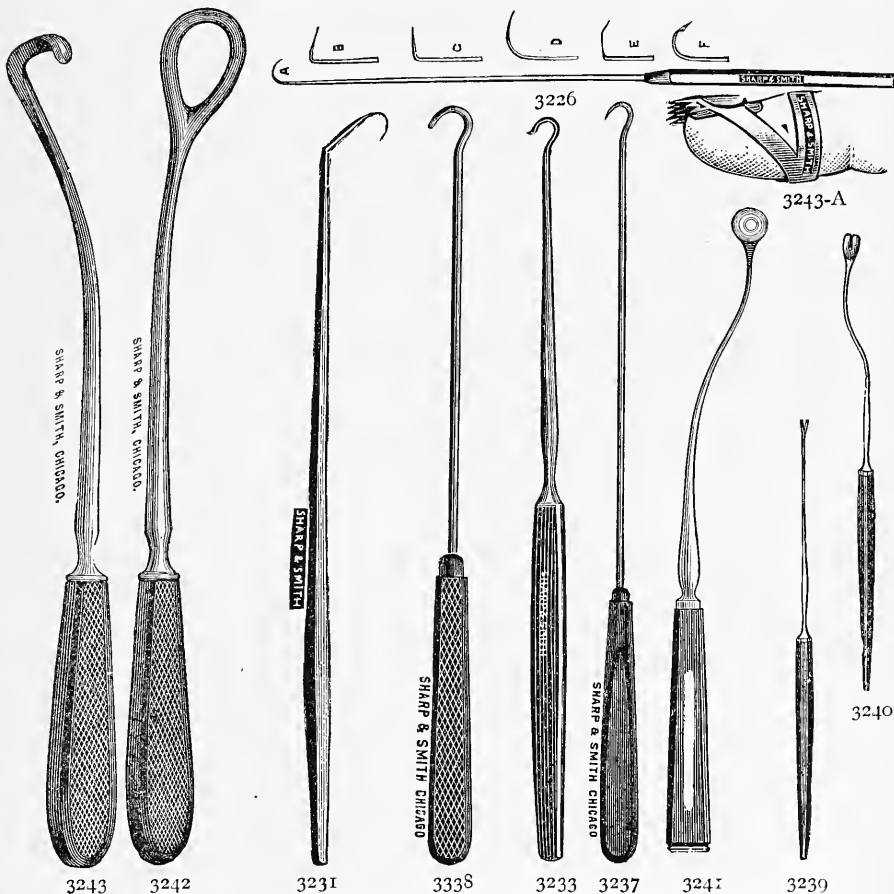
FIG.					
*3218	Sims' Blunt Hook.....	\$	90		
*3219	Byford's Blunt Hook.....	1	10		
*3220	Bozeman's " ".....	1	10		
*3221	" " Double Hook for exerting traction on the uterus....	1	90		
*3222	Emmet's Counter Pressure Hook.....	1	00		
*3223	McDonald's " " ".....	1	50		
*3224	Skene's " " ".....	1	35		
*3225	Wylie's " " ".....	1	00		
*3226 A	and D Sims' Uterine Tenaculum.....		85		
3227	Nott's " " wire.....		25		
*3226 F	Perry's Barbed " ".....	1	10		
3228	Skene's Double " ".....	2	25		
3229	Miller's " " wire.....		25		
3230	Nelson's " " ".....		25		
*3226 B, C	Emmet's " " ".....		85		
*3231	" " " angular.....		90		
3232	Heavy " " for pulling down the uterus.....	1	50		
*3226 E	Bozeman's " ".....	1	15		
*3233	" " with steel shank.....	1	15		



All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—HOOKS.

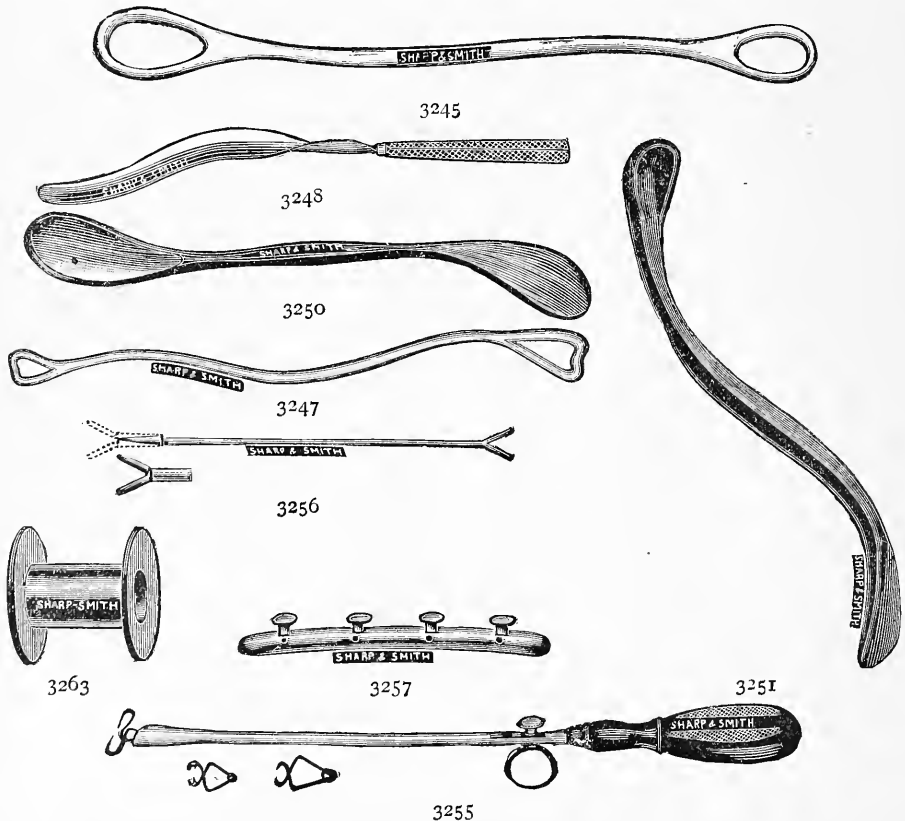
FIG			
3234	Wylie's Uterine Tenaculum.....	\$	85
3235	Dudley's " ".....		90
3236	Thomas' " ".....		85
*3237	Pratt's " ".....		75
*3238	" " " blunt.....		75
	Double Tenacula and Tenaculum Forceps—see index.		
*3239	Sims' Pulley.....		90
*3240	" Wire Adjuster.....	I	00
*3241	Bozeman's Wire Adjuster.....	I	50
*3242	Sims' Eucleator.....	3	00
*3243	" " blunt hook.....	3	25
*3243A	Emmet's Eucleator....	I	15



3233. Dr. Hanks' Improved Tenaculum is of the ordinary shape and size, but differs from other instruments of the kind in this respect. The steel shank is so constructed that the steel extends along the back of the handle, on the side opposite to the point or hook. When the latter is buried in the tissues, the direction in which it points will always be indicated by the metal back, as in the case of Simpson's sound, so that the hook can be disengaged immediately.

GYNÆCOLOGICAL—DEPRESSORS.

FIG.					
3244	Sims'	Vaginal Depressor	.....	\$1	00
*3245	"	Double "	.....	1	00
3246	Emmet's	"	"	1	25
*3247	Nott's Double	"	"	1	00
*3248	Bozeman's	"	"	1	30
3249	Jackson's	"	"	1	50
*3250	Hard Rubber	"	"	1	30
*3251	Whitney's	"	"	1	30
3252	Hunter's	"	"	1	50
3253	Ludlam's	"	"	1	50
3254	Peaslee's	"	"	1	75
*3255	Hoffman's Automatic Suture Instrument	.....	4	25	
*3256	Brickell's Perineal Stays	.....	60		
*3257	Munson's Quill Suture	.....	per pair.	60	
3258	Thomas' Tampons	.....	1	15	
3259	Yarrow's Tampon Carrier	.....	2	50	
*3260	Sims' Tampon Screw	.....	1	00	
*3261	Hard Rubber Tampon Screw	.....	40		
*3262	Sharp & Smith's	"	"	1	10
*3263	Emmet's Glass Button for Cystitis	.....	25		
*3264	Carroll's Knot Tier	.....	1	85	
*3265	Dr. Chas. D. Scudder's Knot Tier	.....	1	50	



GYNÆCOLOGICAL.

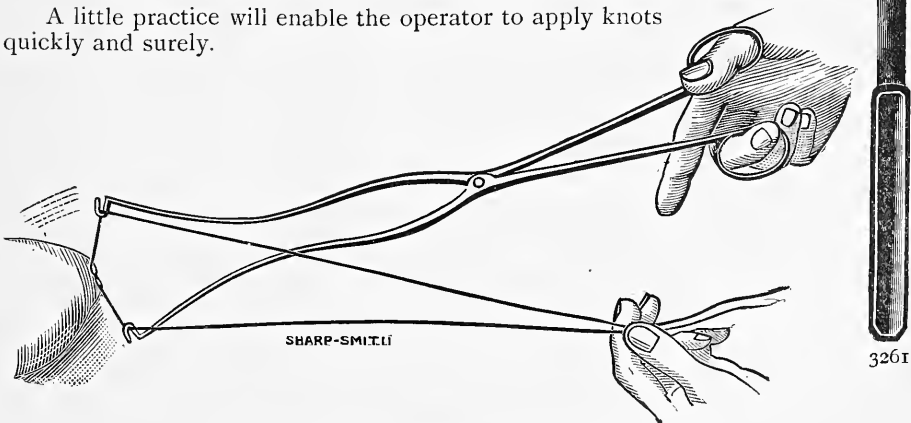
The accompanying cut represents an instrument devised by Charles D. Scudder, M. D., New York, to help in making knots, when suturing or ligaturing in cavities.

The instrument consists of a two-pronged steel shaft with a baked rubber handle. Each prong has an eye near its end, and the distance between the eyes is three-eighths of an inch. The form of the prongs has been changed since the drawing was made, and the fork is now lyre-shaped. It can be made curved to any degree desired. The holes are carefully beveled, and three sizes—nine-inch, six-inch, and four-inch length are made.

In ligaturing, the first knot is carried over the hæmostatic forceps, and the ends of the ligature (which should be of good length) are passed through the holes in the fork, as shown in the sketch. The knot is carried down and placed by the knot-tier wherever wished, and suitable traction is made by pulling on the ends of the ligature, which are wrapped around the fingers of either hand, while steadying the handle with the thumbs. The instrument is then removed carefully, in order not to undo the knot; a new hitch, single or double, is made, the ends again threaded through the eyes, the knot placed, and firm traction completes the operation.

In suturing, the needle is detached after the suture is passed through the tissues to be sewn together, and the knot is made and placed as above described.

A little practice will enable the operator to apply knots quickly and surely.

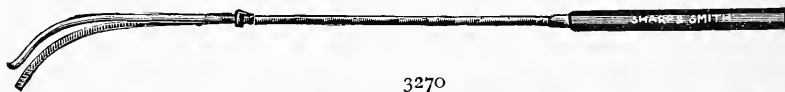


GYNÆCOLOGICAL—SPONGE HOLDERS.

FIG.					
*3266	Sims'	Uterine	Sponge Holder.....	\$	75
*3267	Hart's	"	" " "	I	50
*3268	Emmet's	"	" " "		75
3269	Granger's	"	" " "	I	75
*3270	Fergen's	"	" " "	I	00
3271	German Silver	Uterine	Sponge Holder, long.....		55
3272	Ellsberg's	"	" " "	I	15
*3273	Husson's	"	" " "		75
3274	Byrnes' Uterine	Fixator.....		I	85
3275	Perforated Shot.....		per doz.		10
3276	Shot Punching Forceps.....			2	50
3277	Marcy's Perineum Pins.....		each.		35



3267



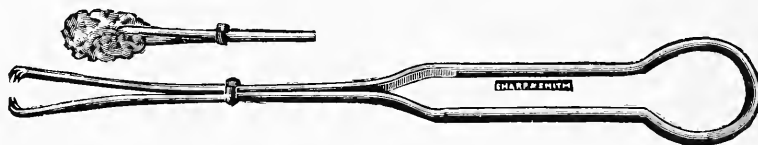
3270



3268



3266



3273

We call the attention of the profession to an easily cleaned and perfectly aseptic Sponge Holder (Fig. 3273.)

The instrument is nine inches long and made out of a single piece of steel wire, nickel plated. The blades are brought together by a ring of steel, which can be readily slipped off, thus permitting the instrument to be thoroughly cleaned.

The cut represents the instrument so clearly that further explanation is unnecessary.

The advantages claimed for this instrument are :

1. That it is easily cleaned, hence thoroughly aseptic.
2. That it is light, strong and durable.
3. That it is cheap.

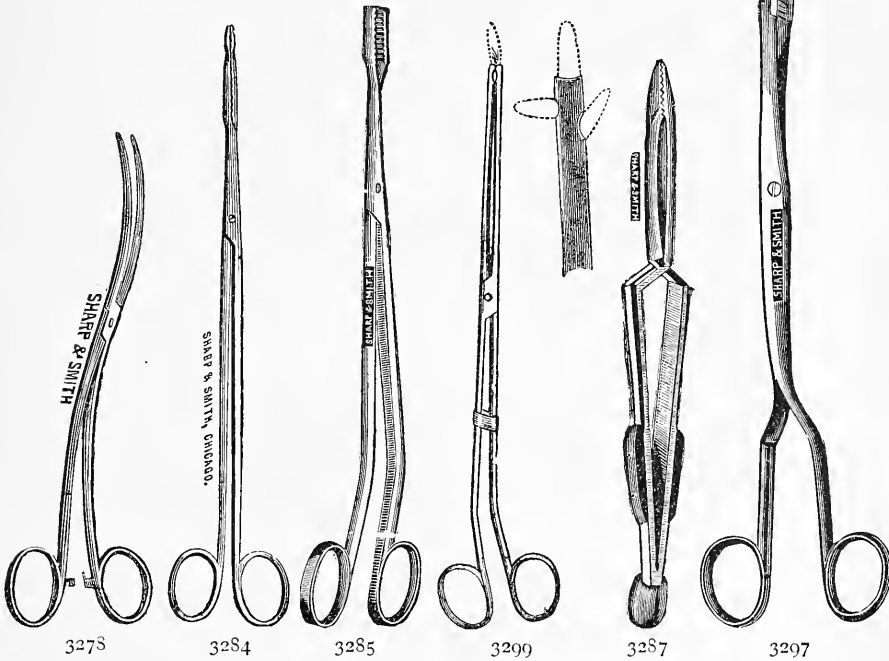
Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—DRESSING FORCEPS.

FIG.						
*3278	Bozeman's Uterine Dressing Forceps, with catch.....					\$1 75
3279	" " " " " without catch.....					1 50
3280	Sims' " " " " " " " ".....					1 75
3281	" " " " " with slide " ".....					2 25
3282	Elliott's " " " " " " " ".....					1 75
3283	" " " " " without catch.....					1 50
*3284	Plain " " " " " " " ".....					1 50
*3285	Byford's " " " " " " " ".....					1 50
3286	" " " " " with " ".....					1 75
*3287	Thomas' latest Uterine Dressing Forceps, cross action.....					3 00
3288	Emmet's " " " " " slide catch.....					2 00
3289	Hart's " " " " " " " ".....					1 85
3290	Leonard's " " " " " with catch.....					1 85
3291	Allen's straight " " " " " " " ".....					1 75
3292	" " " " " without catch.....					1 50
3293	Winston's " " " " " " " ".....					2 60
3294	Buttles' " " " " " " " ".....					1 75
3295	Wylie's " " " " " " " ".....					2 25
3296	Shield's " " " " " " " ".....					1 75
*3297	Emmet's " " " " " " " ".....					2 50
3298	Thomas' " " " " " " " ".....					2 00
*3299	Gardner's Uterine Caustic Holding " " " ".....					2 40
*3300	Sims' " " " " " " " ".....					3 00



3300



3278

3284

3285

3299

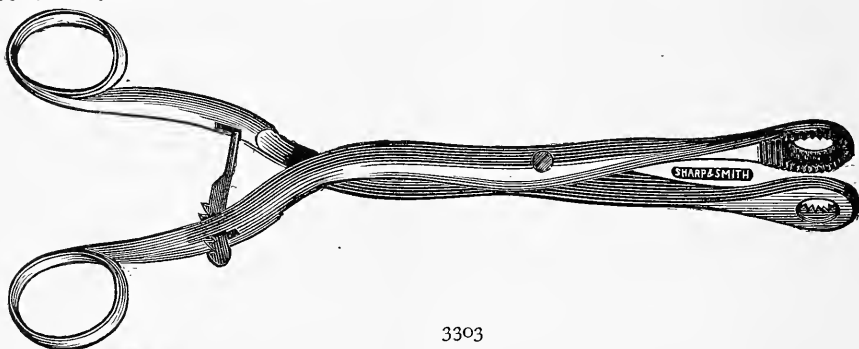
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3297

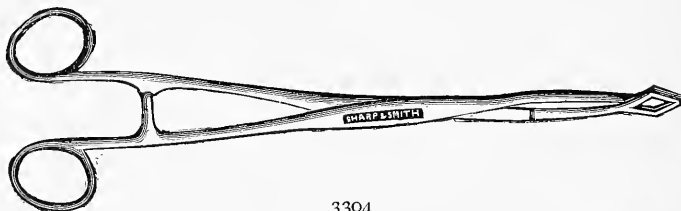
All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—POLYPUS FORCEPS.

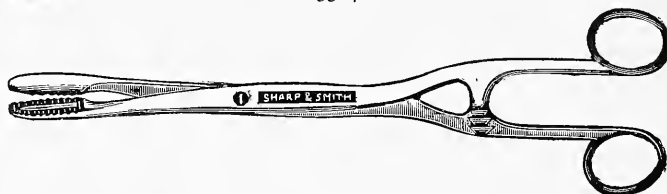
FIG.		
3301	Sims' Uterine Polypus Forceps.....	\$ 3 00
3302	Luer's " " ".....	4 00
*3303	McClintock's Uterine Polypus Forceps.....	4 50
*3304	Baer's " " ".....	3 00
*3305	Heavy Straight " " ".....with catch	2 75
*3306	Thomas' " Applying ".....	2 00
*3307	Wylie's " Angle ".....	2 50



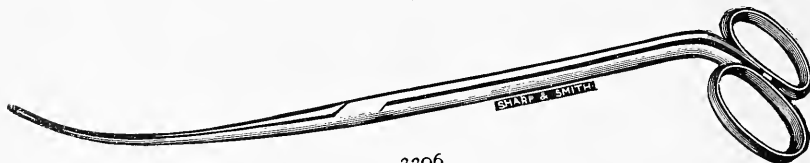
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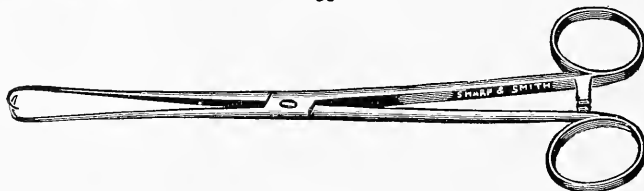
3304



3305



3306

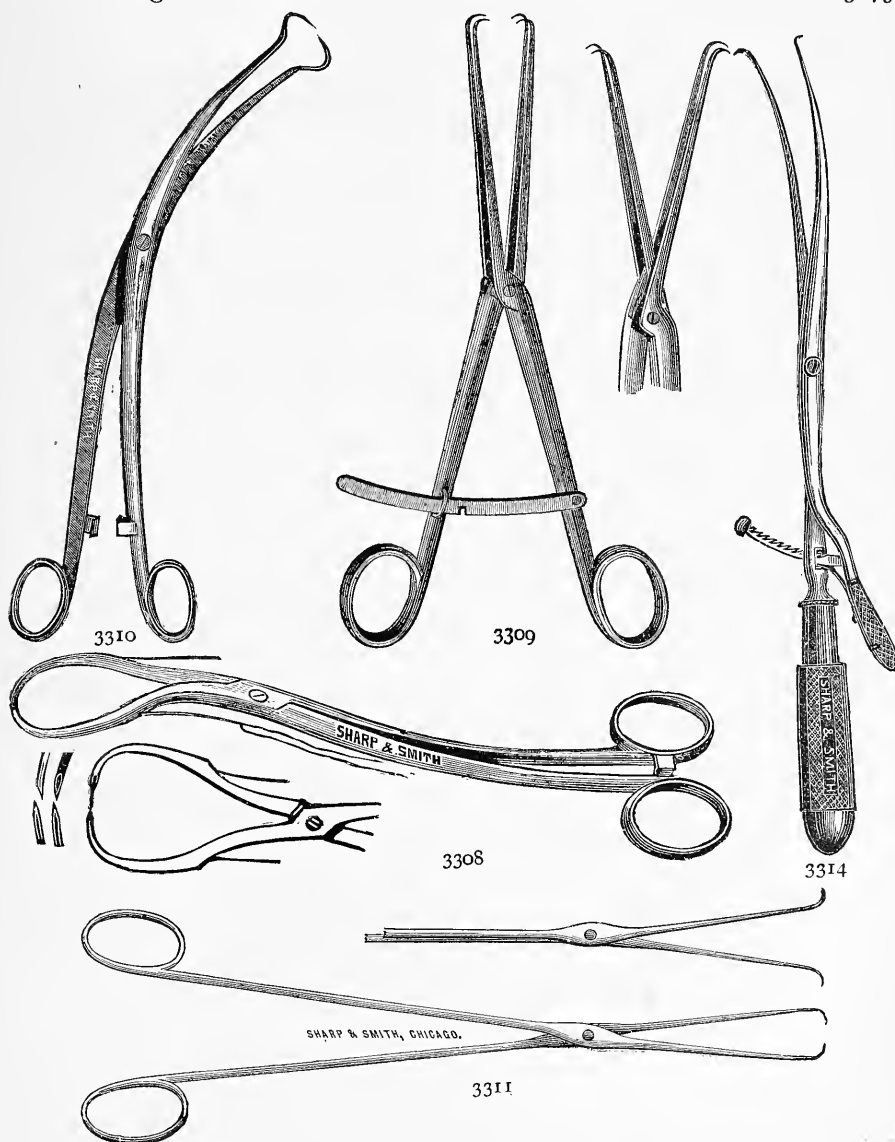


3307

Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—FORCEPS.

FIG.			
*3308	Currie's	Double Canulated Forceps.....	\$ 5 25
*3309	Byrnes' Uterine Tenaculum	"	4 50
*3310	Skenes' " " "	"	2 25
*3311	Ball's " " "	"	1 85
3312	Hanks' " " "	"	2 25
3313	Nott's " " "	"	2 25
*3314	Emmet's " " "	for holding together the edges of wounds.....	3 75
3315	Thomas' Uterine Tenaculum Forceps	for holding together the edges of wounds.....	3 75



GYNÆCOLOGICAL—FORCEPS.

FIG.		
*3316	Thomas' Shouldering Forceps.....	\$3 50
3317	Sponge Holding and Dressing Forceps.....	2 00
*3318	Langenbeck's Seizing ".....	2 25
*3319	Sims' ".....	2 25
3320	Thomas' ".....	3 00
*3321	Self Grasping ".....	2 25
*3322	Byrnes' ".....	2 25
*3323	Whitehead's ".....	3 35
*3324	Dixon's Applying and Dressing ".....	4 50



3316



3323



3321



3318



3322



3319

In certain cases in gynæcological practice the ordinary methods of cleaning the part and making application to diseased surfaces have proved so troublesome that there has been devised the following described instrument, in order to facilitate the performance of the process.



3324

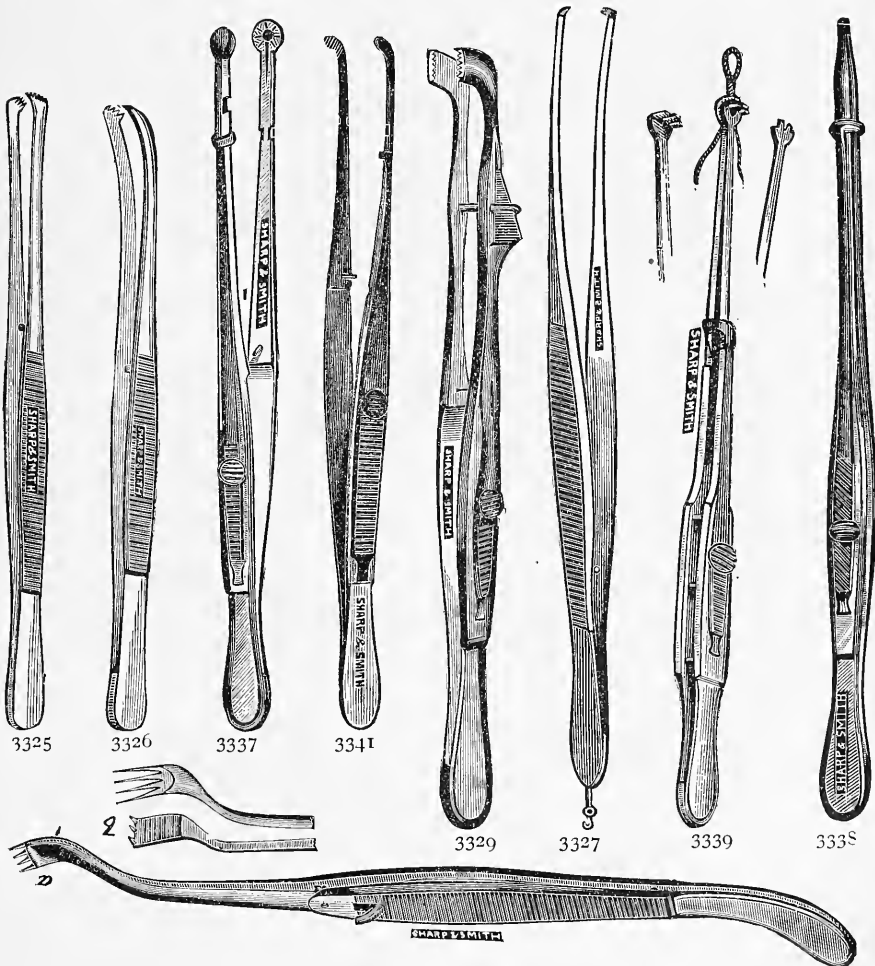
The instrument is a modification of the well-known throat applicator devised by the late Dr. Ellsberg. It is essentially a forceps provided with a lock similar to the lock of an obstetrical forceps, in order that the blades may be separated, to facilitate cleaning.

The method of using the instrument is as follows: A bit of cotton is rolled into a wad of the proper size, leaving a firmly twisted projecting portion, which is grasped between the teeth of the forceps without springing the blades; the cotton is then saturated with the appropriate medicament. Thus armed, the instrument is introduced through a speculum, and the cotton point passed through the ostium into the uterine cavity, and the medicament brought into contact with the parts to be operated upon.

GYNÆCOLOGICAL—FORCEPS.

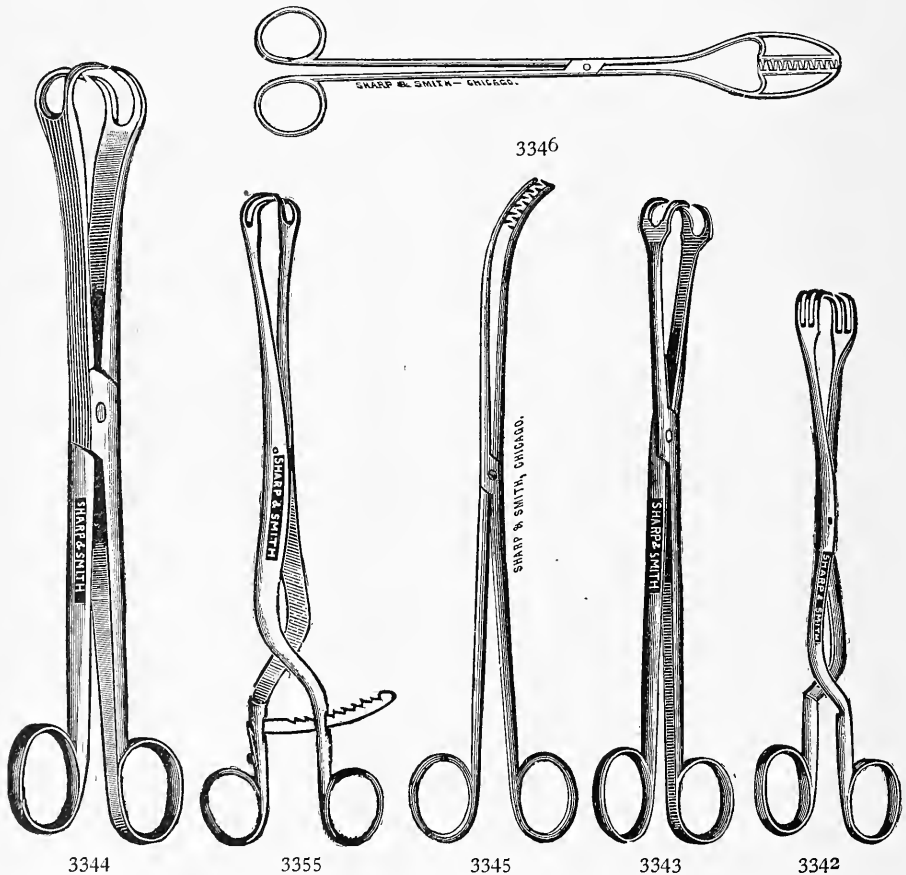
FIG.

*3325	Plain Tissue Forceps, straight.....	\$1 50
*3326	“ “ “ curved.....	2 00
*3327	Agnew's “ “ and adjuster.....	2 00
3328	Thomas' “ “ straight.....	3 25
*3329	“ “ “ curved.....	3 25
3330	Sims' “ “ “.....	2 75
3331	“ “ “ straight.....	2 75
3332	Scott's “ “ “.....	2 00
3333	Nott's “ “ “.....	2 00
3334	Adjustable “ “ with catch.....	3 00
3335	Curved “ “ “.....	2 25
*3336	Dr. Geo. Cowan's Tissue or Trachealoraphy Forceps, spring catch.....	3 35
*3337	Emmet's Wire Twisting Forceps.....	2 25
*3338	Nott's “ “ “.....	2 25
*3339	Fitch's “ “ “.....	3 00
3340	Thomas' “ “ “.....	2 25
*3341	Sims' “ “ “.....	2 25
3341	Emmet's “ “ Pressing “.....	1 85



GYNÆCOLOGICAL—FORCEPS.

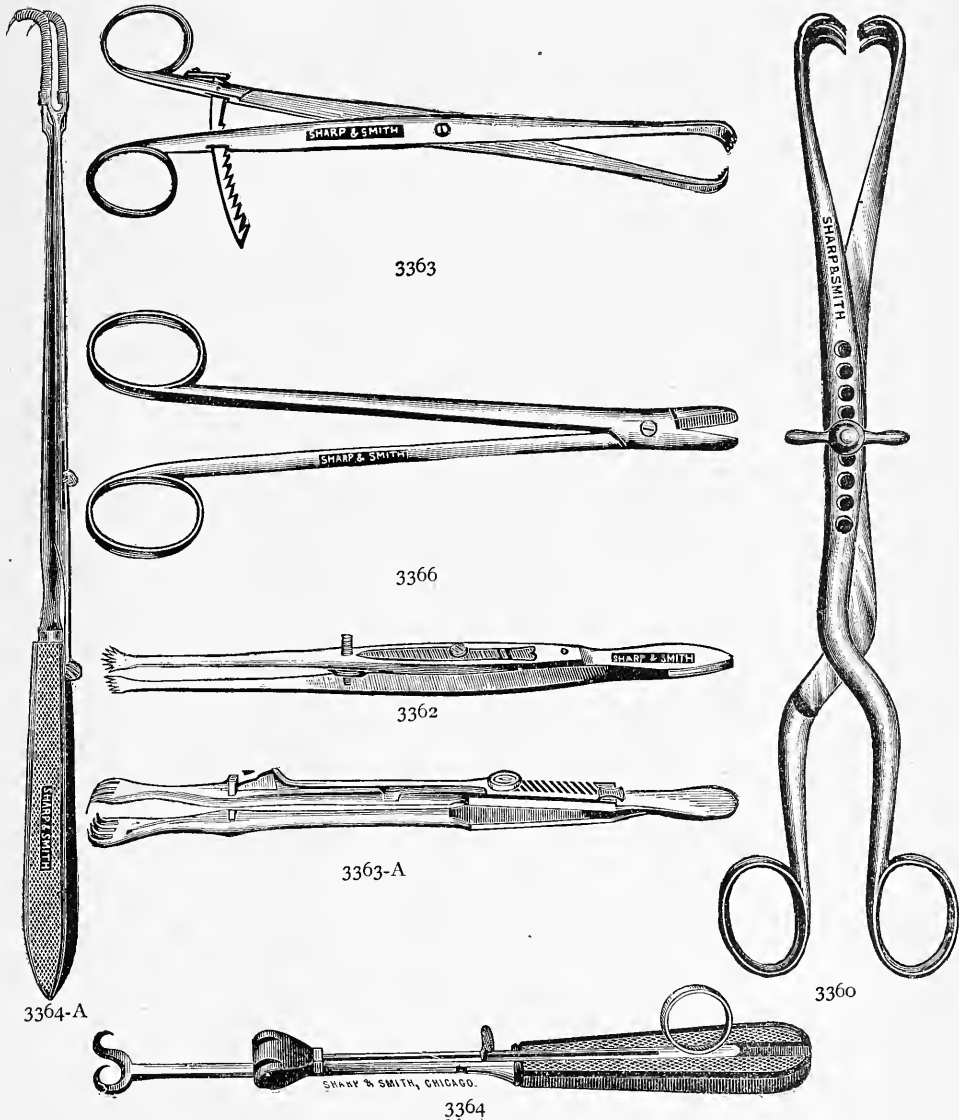
FIG.									
*3342	Byford's	Vulsellum	Forceps	.....	.....	small	\$2	25	
*3343	"	"	"	.....	.....	medium	2	50	
*3344	"	"	"	.....	.....	large	2	75	
*3345	Musseau's	"	"	.....	.....		2	25	
*3346	Byrnes'	"	"	.....	.....		2	25	
3347	Steele's	"	"	.....	.....		3	00	
3348	Jackson's	"	"	.....	.....		2	00	
3349	French's	"	"	.....	.....		2	25	
3350	Plain Regular	"	"	6 and 7 inch	.....	each	1	70	
3351	"	"	"	8 " 9 "	.....	"	1	85	
3352	"	(with catch)	Vulsellum Forceps,	6 and 7 inch		"	1	85	
3353	"	"	"	8 " 9 "		"	2	25	
3354	"	with ratchet	"	7 1/2 "		"	2	25	
*3355	"	"	"	8 1/2 "		"	2	65	
3356	"	"	"	9 1/2 "		"	3	00	
3357	Side Prong	"	"	6 " 7 "		"	1	85	
3358	"	"	"	8 " 9 "		"	2	25	



All instruments designated by a * are illustrated.

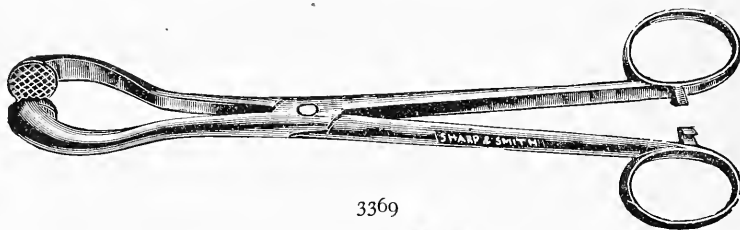
GYNÆCOLOGICAL—FORCEPS.

FIG.		
3359	Campbell's Uterine Tumor Forceps.....	\$6 00
*3360	Greenhalgh's " " ".....	5 00
3361	Nelaton's " " ".....	2 75
*3362	Tumor Forceps with Set Screw.....	2 50
*3363	Byrne's Tumor Forceps with Ratchet.....	2 50
*3363-A	Slide Catch Tumor Forceps.....	3 25
*3364	Sims' Vulsellum Hook.....	4 50
3364-A	Kuechenmeister's Vulsellum Hook.....	3 75
3365	Thomas' Speculum Forceps.....	2 00
*3366	Shot Compressing ".....	1 85

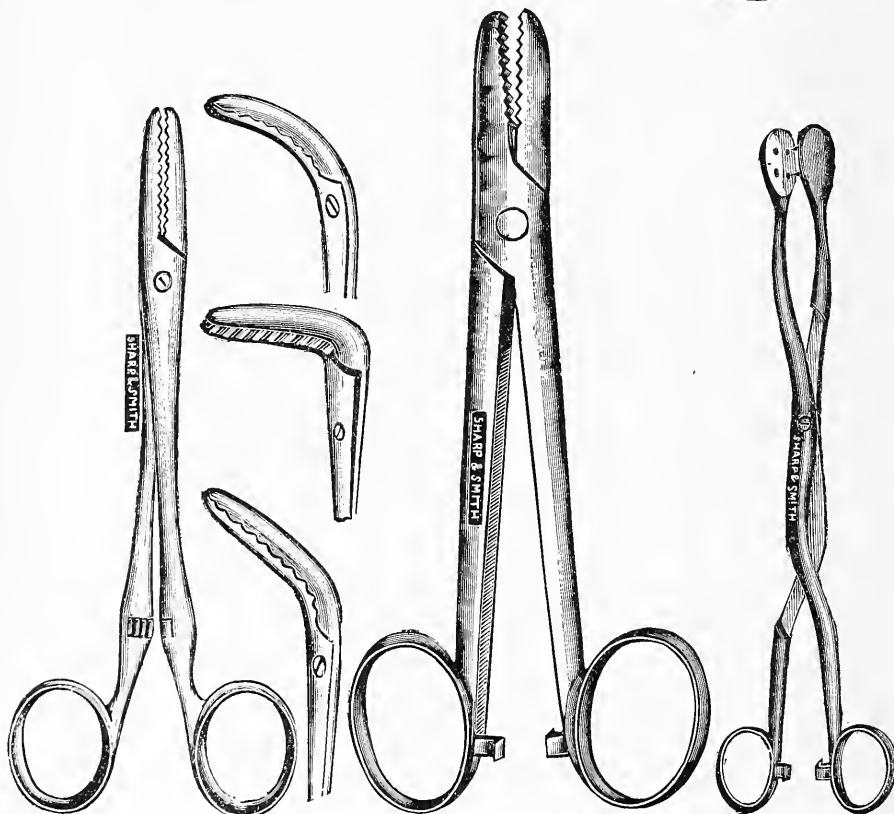


OVIARTOTOMY INSTRUMENTS.

FIG.					
*3367	Nelaton's Pedicle Forceps.....	\$	2	85	
*3368	Spencer Wells' Pedicle Forceps, angular.....		3	75	
*3368	" " " " straight.....		3	75	
*3368	" " " " half curved.....		3	75	
*3368	" " " " full ".....		3	75	
*3369	" " Sac ".....		3	75	
*3370	Sidney F. Wilcox's ".....		4	25	
*3371	Thomas' ".....		2	25	
3372	Thompson's Vesico Tumor Forceps.....		4	50	
3373	" " " ".....		4	50	
3374	" " " ".....		4	50	
*3375	Dr. C. M. Wilson's ".....		4	50	



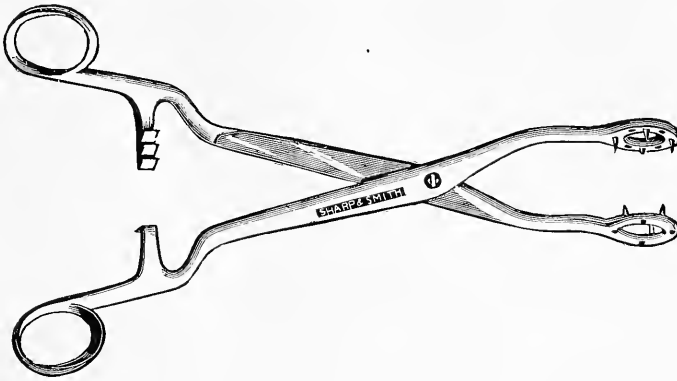
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GYNÆCOLOGICAL—OVARIOTOMY.

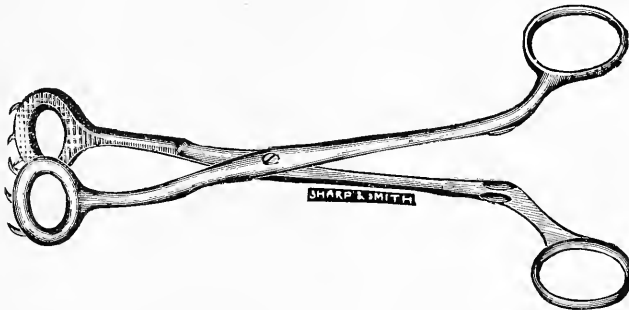
3375

A NEW FORCEPS FOR CATCHING THE SAC IN THE OPERATION OF OVARIOTOMY.

By SIDNEY F. WILCOX, M. D., New York.

Having on many occasions noticed the difficulty experienced in catching the sac of an ovarian tumor, I devised the forceps represented in the cut, and they have proved in every way a success.

The difficulty usually experienced is that, when the sac is distended, it is difficult to catch hold of it with anything except a large vulsellum forceps, and afterward the sharp teeth are liable to tear a friable sac if traction is made.



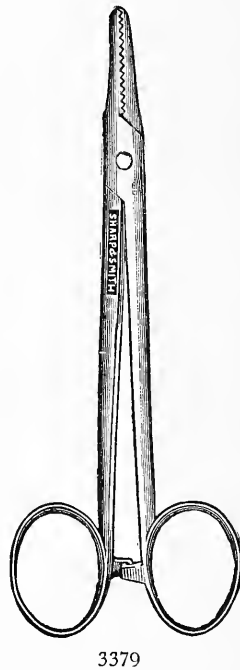
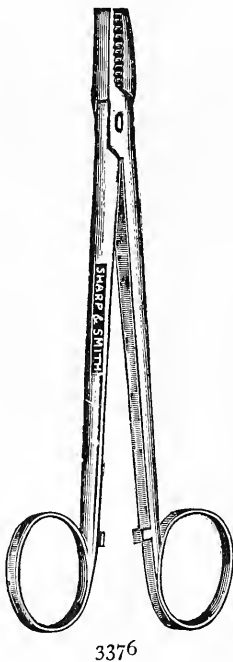
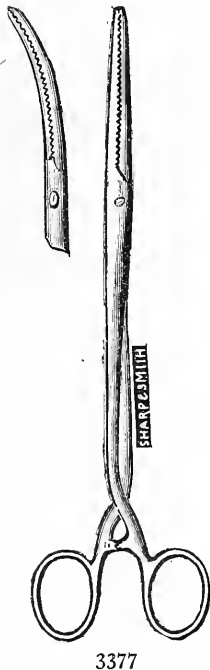
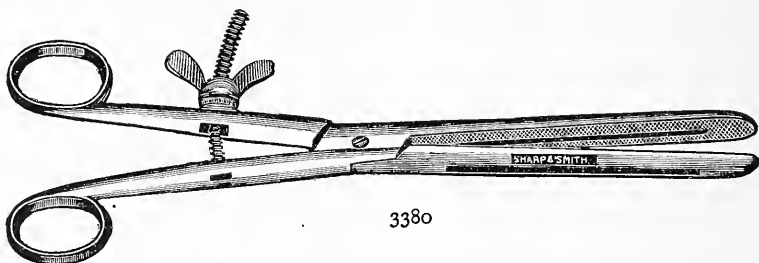
3370

For holding the sac and making traction, a forceps with broad flat blades is necessary, but, with those ordinarily made, it is impossible to seize the sac until it has collapsed.

The forceps shown in the cut is a combination of the vulsellum and the broad bladed forceps. By widely separating the blades the projecting teeth can be fixed into the sac, and as the trocar is plunged in and the sac gradually collapses, the jaws are closed, and the walls are folded in between the broad fenestrated blades. The handles are then locked, thus giving a firm hold on the sac, by which means a great deal of traction can be made without fear of laceration.

GYNÆCOLOGICAL—OVARIOTOMY.

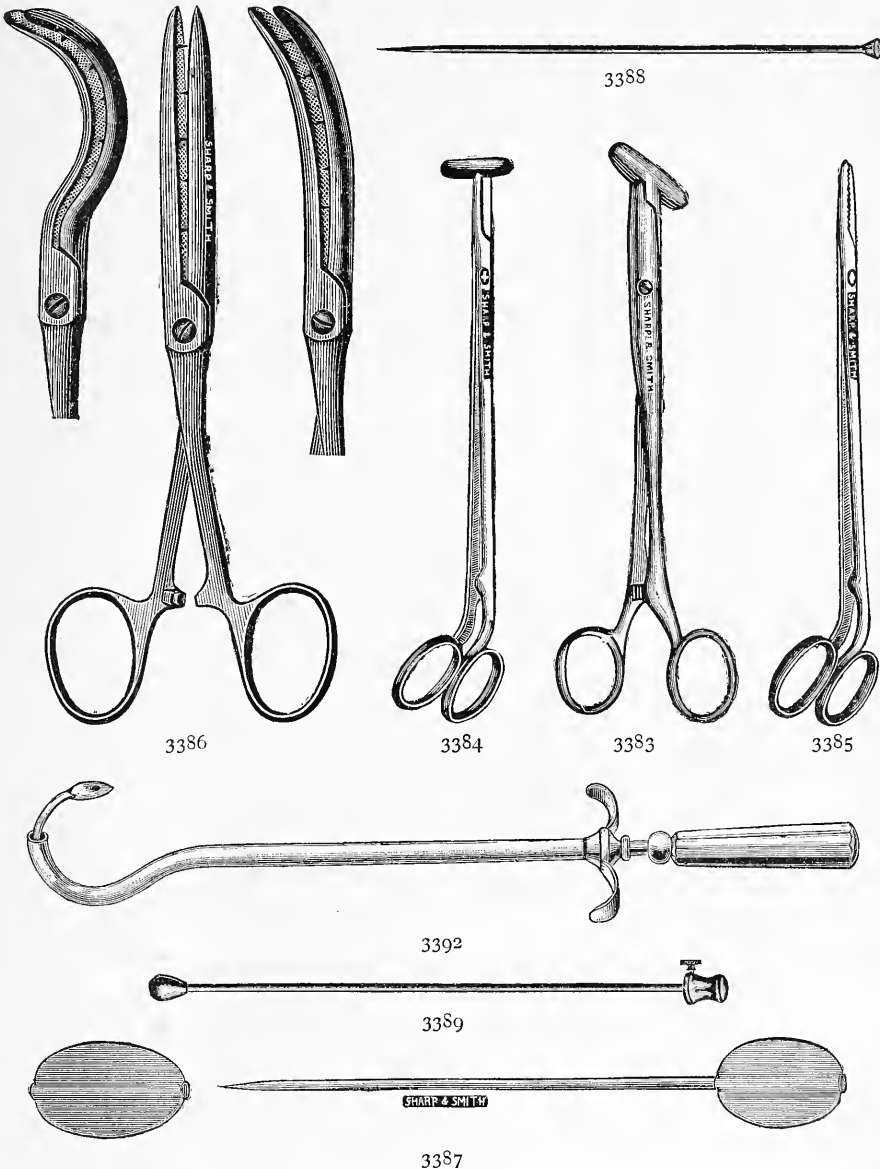
FIG.		
*3376	Thomas' Hæmostatic Forceps.....	\$ 1 85
*3377	Faenger's large straight Hæmostatic Forceps, 9½ inches.....	2 50
*3377	“ “ curved, “ “ “.....	2 50
3378	“ small straight “ “.....	1 75
*3379	Spencer Wells' Torsion Forceps.....	3 00
*3380	“ “ Clamp.....	6 00
*3381	“ “ “ “.....	3 75
3382	Tait's Compression “.....	1 50
*3383	Thornton's “ “.....	3 75
*3384	“ Mod. by Byford's Compression Forceps.....	4 50
*3385	“ “ “ “.....	4 50
*3386	Peans' Heavy Clamp “.....each.	3 50



Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—OVARIOTOMY.

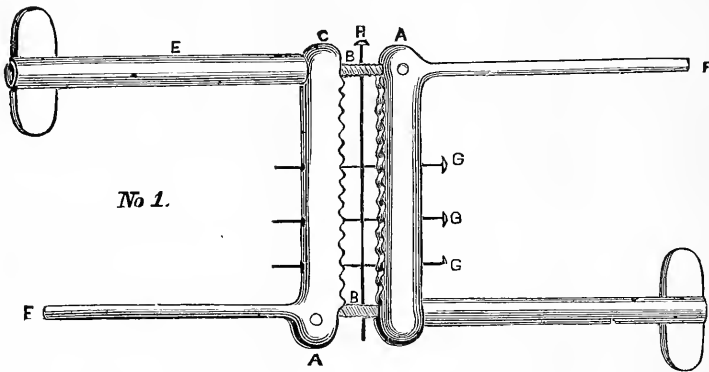
FIG. .					
*3387	Dudley's Ovariotomy Pins.....	each.	\$	75	
*3388	Peck's " "	"		60	
*3389	Wilcox's " "	"		50	
3390	Kellogg's " " Silver.....	per doz.	2	00	
3391	" " " Gold.....	"	3	00	
*3392	Hunter's Pedicle Needle.....		7	50	



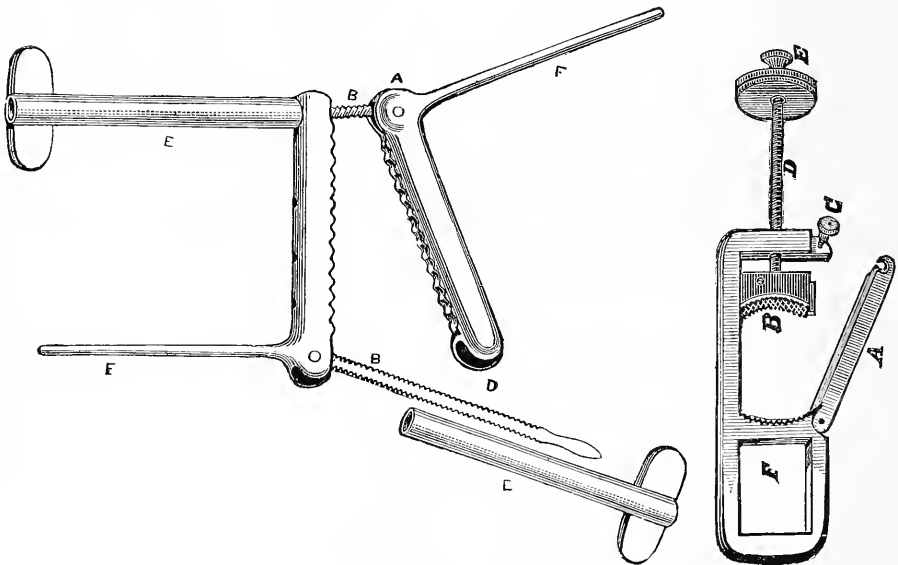
Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—OVIARTOTOMY.

FIG.		
*3393	Atlee's Ovariotomy Clamp.....	\$4 50
3394	Nott's " "	9 00
*3395	Spencer Wells' Ovariotomy Clamp.....	4 50
*3396	Storer's " "	9 00
*3397	Tait's " "	10 00
*3398	Thomas' " "	3 35
*3399	Dawson's Modified " "	6 00



3393—No 1.

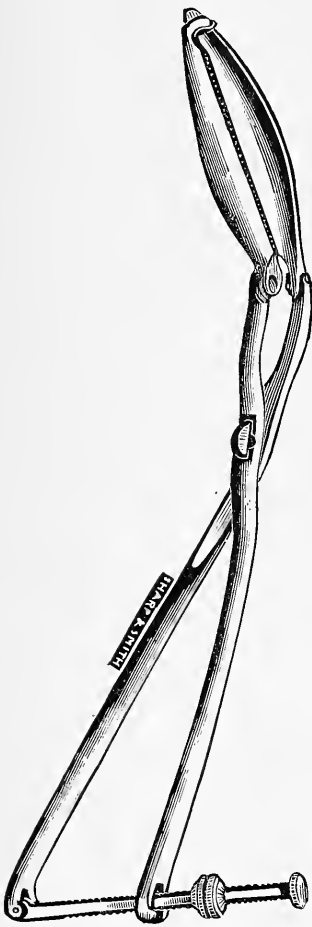


3393—No. 2.

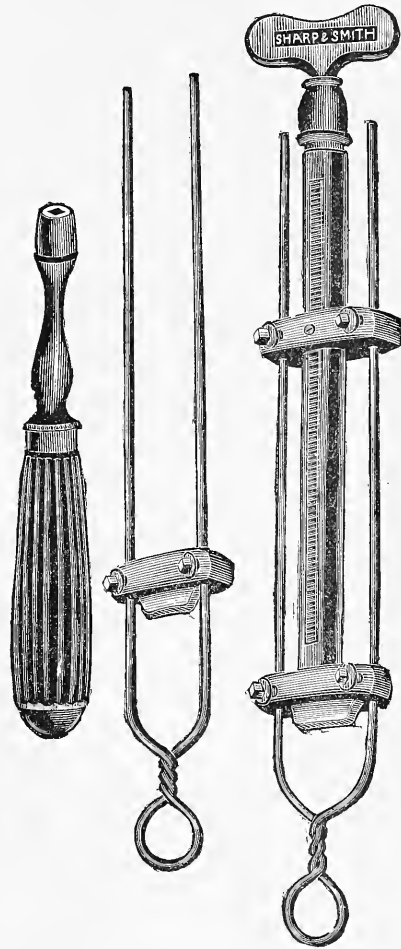
3399

All Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—OVARIOTOMY.



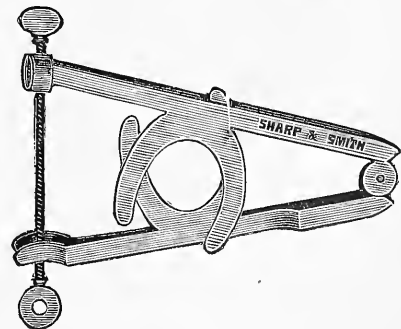
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3397



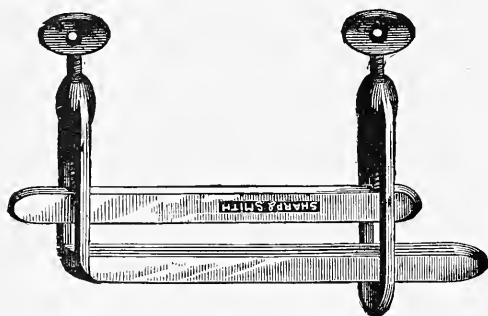
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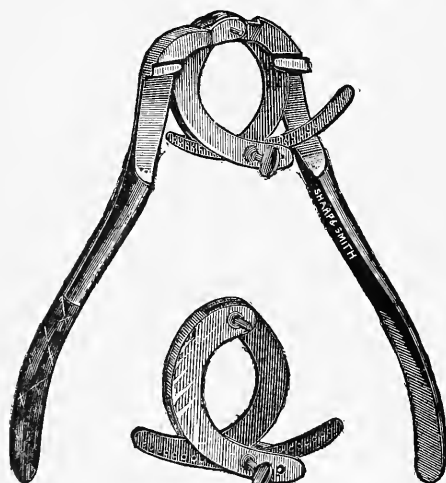
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GYNÆCOLOGICAL—OVARIOTOMY.

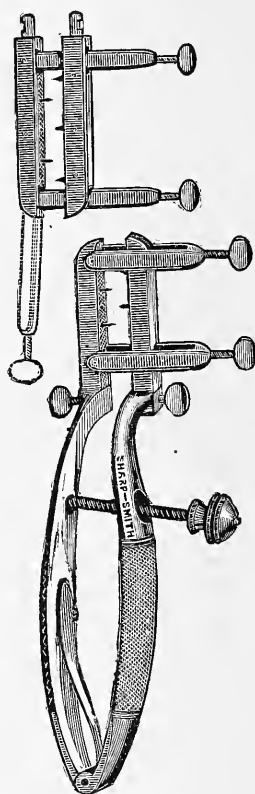
FIG.			
*3400	Gueride's Ovarian Clamp.....	\$2 75	
3401	Skene's " "	1 15	
3402	Hard Rubber " "	4 00	
3403	Noeggerath's " "	5 25	
*3404	Baker Brown's " "	5 25	
*3405	Byford's " " consisting of two Clamps and one pair Lever Forceps.....	11 25	
3406	Wilde's Ovarian Clamp.....	4 50	
3407	Lewis' " "	3 00	
3408	McLeod's " "	1 85	
*3409	Spencer Wells' Pedicle Clamp.....	18 75	



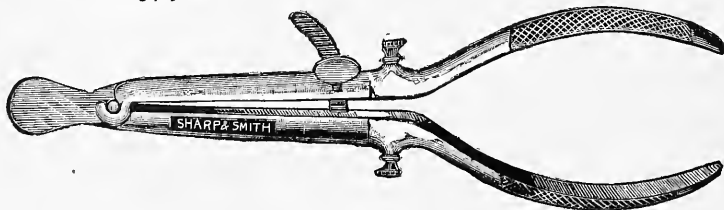
3400



3409



3405



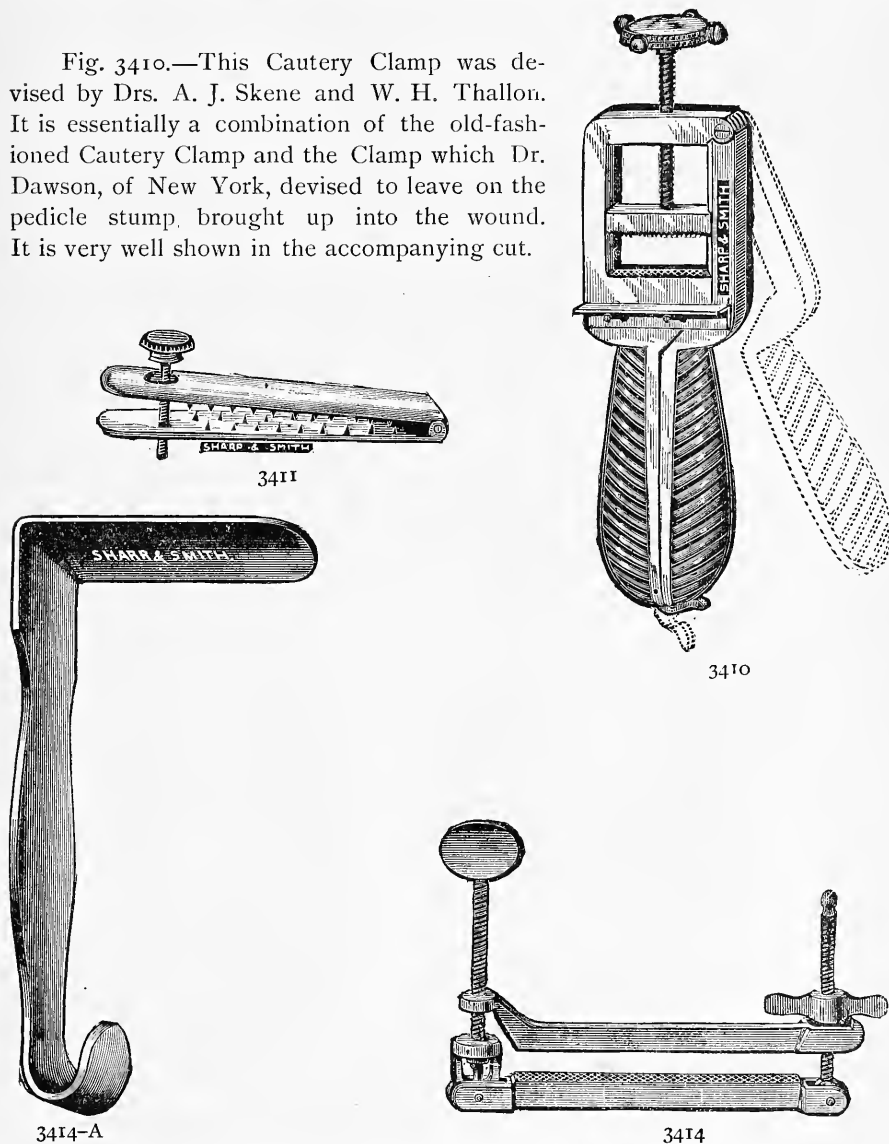
3404

GYNÆCOLOGICAL—OVARIOTOMY.

FIG.

*3410	Dr. A. J. Skene's and W. H. Thallon's M. D.'s Cautery Ovari-	
	otomy Clamp.....	\$ 6 00
*3411	Thomas' Clamp, for Compressing Vaginal Wounds.....	6 00
3412	King's Scrotal Clamp.....	3 50
3413	Henry's " ".....	6 00
*3414	Thomas' Ovariotomy Clamp.....	4 50
*3414-A	Byford's Vaginal Retractor.....	1 50

Fig. 3410.—This Cautery Clamp was devised by Drs. A. J. Skene and W. H. Thallon. It is essentially a combination of the old-fashioned Cautery Clamp and the Clamp which Dr. Dawson, of New York, devised to leave on the pedicle stump, brought up into the wound. It is very well shown in the accompanying cut.



All instruments designated by a * are illustrated.

Fig. 3414-B.—DR. C. S. ELDRIDGE'S CUTTING CLAMP.

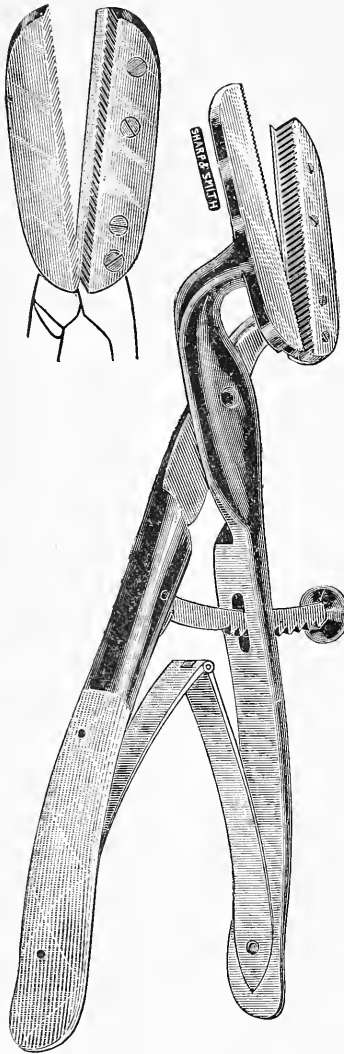
The following are some of the advantages of this instrument :

- 1st. It cuts and clamps simultaneously.
- 2d. It is a safe haemostatic.
- 3d. This instrument works admirably in operations for cystocele. Its work here, as elsewhere, is accurate, reliable, bloodless, and rapid.
- 4th. As a Clamp in Ovariectomy it is so convenient that it must of necessity become a general favorite.
- 5th. There is no instrument on the market like it ; nor is there one that can be handled so dexterously.
- 6th. This instrument is arranged with teeth that transfix the tissues before cutting, and makes it impossible for them to slip.
- 7th. Of its application for removal of prolapsed and redundant rectal tissues, Dr. E. H. Pratt says : " It is an exceedingly ingeniously contrived Clamp, and is much superior to previous inventions for this purpose. It is more easily managed than other instruments, does its work speedily, and is a valuable contribution to a surgeon's outfit."

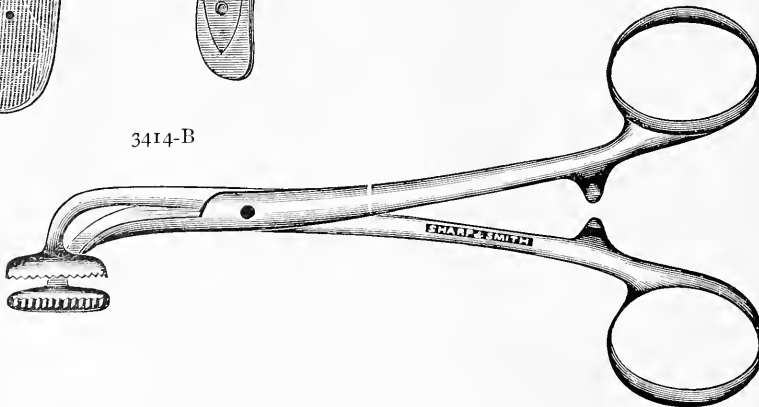
8th. It is usually desirable to stitch tissues that are clamped. In pedicled strictures, of course the tissues are to be thoroughly choked by ligatures before the Clamp is removed, simply because they are the more easy of access. Where the object is to merely hold in coaption several edges, the ligatures can be placed in position before the Clamp is removed, but not tied until clamp is taken off.

Fig. 3414-C.—DR. C. S. ELDRIDGE'S CLAMP FOR INTERNAL PILES.

The jaws of this Clamp are placed at right angles with its handles, which allows such tissues to be completely viewed as it is the operator's intention to include in the Clamp. The instrument possesses so much power, and clamps so effectually, the inventor thinks it will become deservedly popular.



3414-B

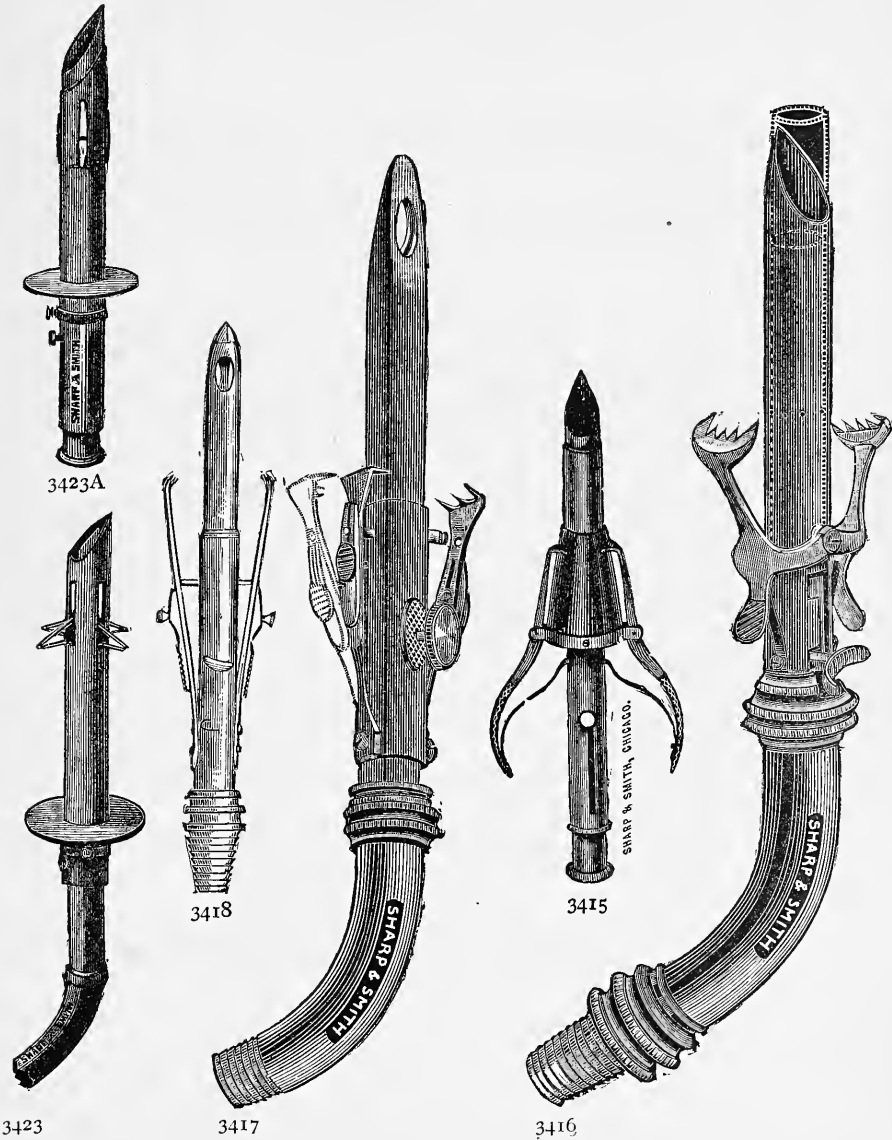


3414-C

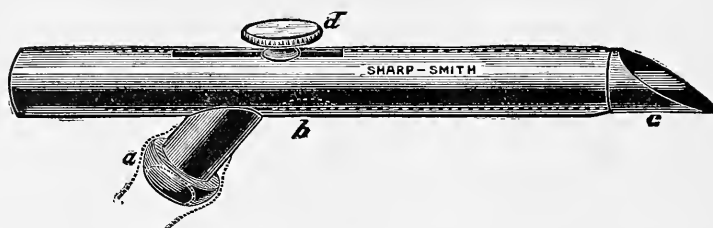
For other Instruments of Dr. Eldridge's, see "Supplement" at end of book.

GYNÆCOLOGICAL—OVARIOTOMY.

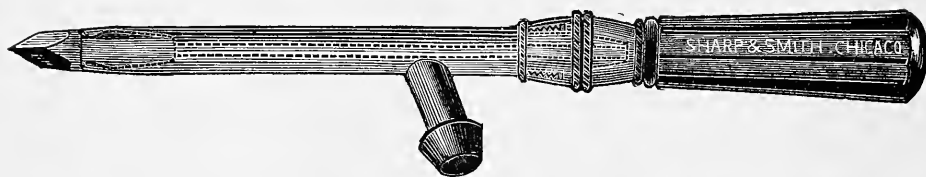
FIG.			
*3415	Spencer Wells' Ovarian Trocar, straight.....	\$	7 50
*3416	" " " " curved, large.....		15 00
*3417	Lawson Tait's " " curved.....		16 50
*3418	" " " " straight.....		12 00
*3419	Dunster's " "		5 00
*3420	Emmet's " "		3 25
3420-A	" " curved		8 25
*3421	Warren's " "		11 25
*3422	Fitch's Dome " " complete.....		10 50
*3423	Thomas' " "		15 00



GYNÆCOLOGICAL—OVARIOTOMY.



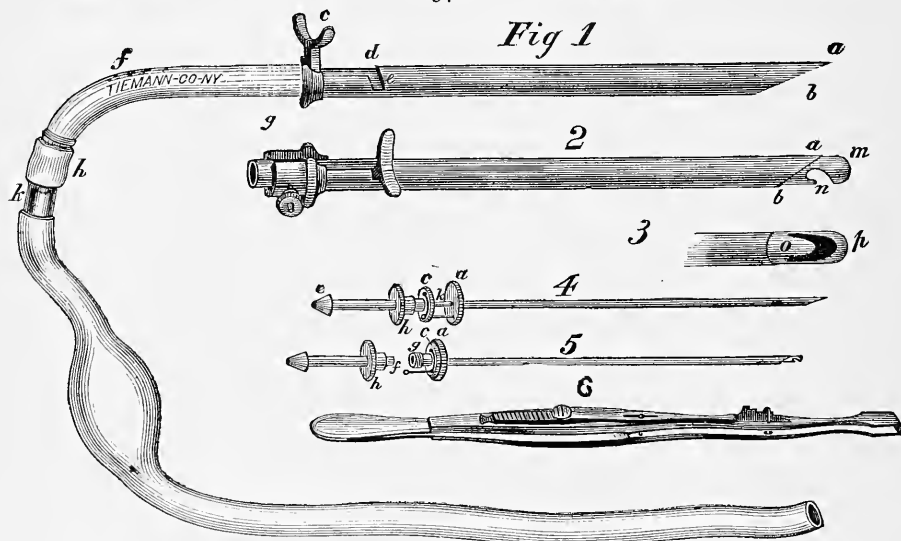
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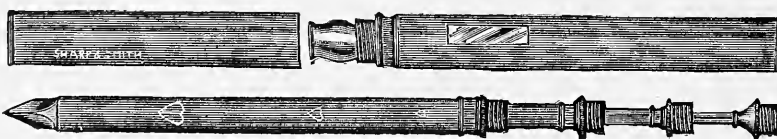
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3421



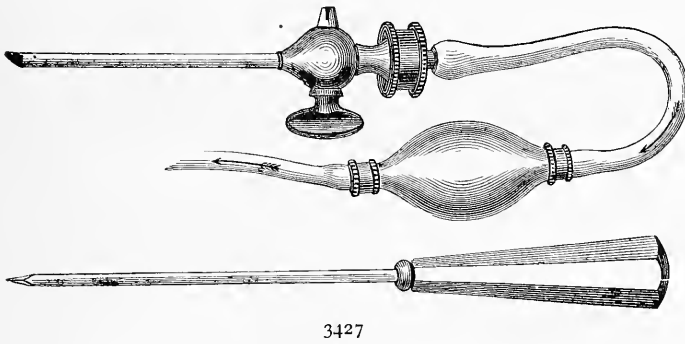
3422



3424

GYNÆCOLOGICAL—OVARIOTOMY.

FIG.		
*3424	Set of 4 Nested Trocars in case	\$4 00
3425	" 3 " " "	3 50
*3426	Pean's Trocars	5 25
*3427	Flint's "	3 00

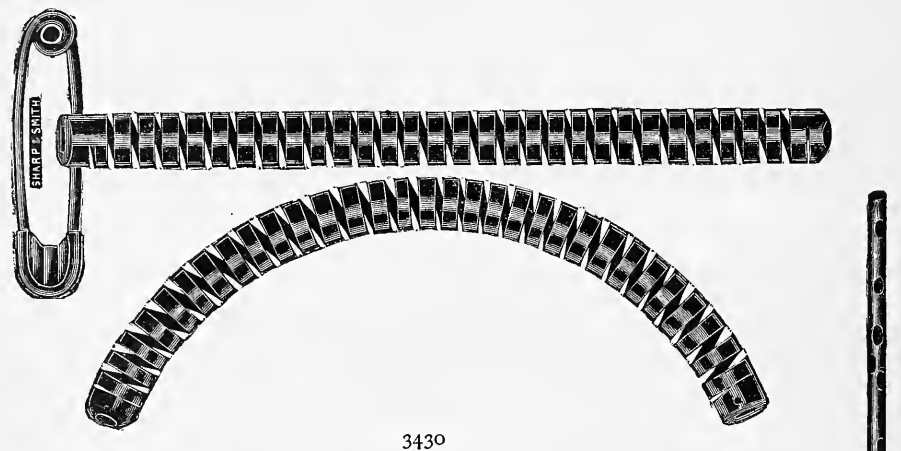


WE call attention to the front part of this Catalogue, stating that prices are strictly net, except where otherwise stated. We believe this to be the best plan, because Surgical Instrument Lists differ to such an extent that the physician and surgeon would have great difficulty in figuring out the net prices of each house in our line.

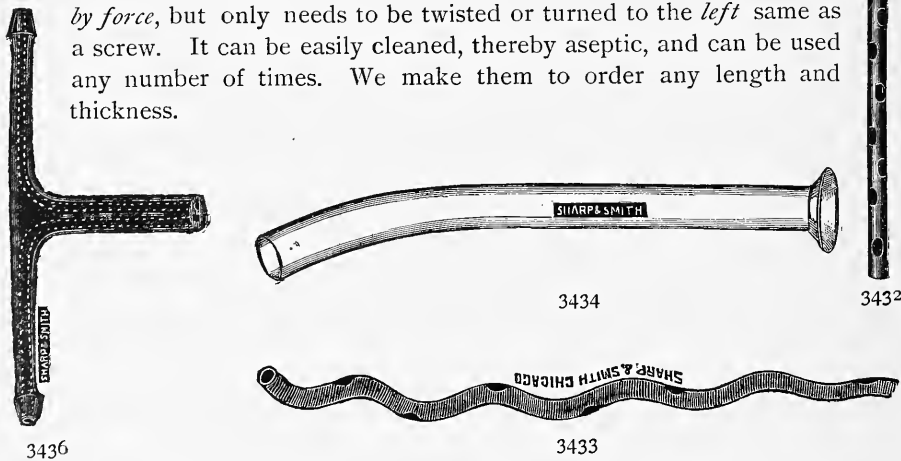
All goods bearing our name are warranted.

GYNÆCOLOGICAL—DRAINAGE TUBES.

FIG.		
*3430	Spicker's Hard Rubber Spiral Drainage Tubes, small.....	\$ 50
3431	“ “ “ “ “ “ large.....	75
*3432	Pure Silver Drainage Tube, 7 inches long.....	75
*3433	Rubber (soft) “ “ per yard.....	30
*3434	Thomas' Glass “ “	35
3435	“ “ “ “ perforated on sides	85
*3436	“ Hard Rubber Drainage Tube double.....	2 00



Regarding the above Drainage Tube we would state that hard rubber being a non-irritant, the drain is more complete than glass or soft rubber. They can be screwed into any wound, no matter how much curved the wound is, and when removing the tube does not need to be *drawn by force*, but only needs to be twisted or turned to the *left* same as a screw. It can be easily cleaned, thereby aseptic, and can be used any number of times. We make them to order any length and thickness.



All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—DRAINAGE TUBES.

FIG.			PER SET.
*3437 to 3445.	Dr. D. A. K. Steele's No. 1	Set of Drainage Tubes....	\$3 00
*3446 to 3451.	" " " " 2	" " " "	4 00

PROF. D. A. K. STEELE'S IMPROVED GLASS DRAINAGE TUBES.

We desire to call the attention of the medical profession to an Improved Glass Drainage Tube, manufactured by us at the suggestion of Prof. D. A. K. STEELE.

They are manufactured from the best double annealed imported glass and possess the ideal requisites for perfect wound drainage.

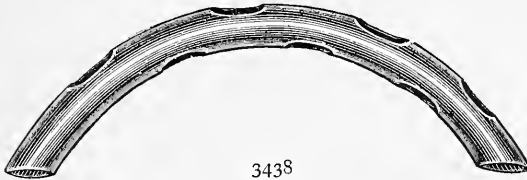
They are absolutely aseptic, non-collapsible, easily removed and re-inserted, and durable. We feel confident that they possess many points of superiority over rubber or bone drainage tubes, that will be readily recognized by practical surgeons. The apertures in these tubes are oblong and perfectly smooth.



3437

Fig. 3437.

No. 1	Straight.	5 inches long.
" 2	"	4 " "
" 3	"	3½ " "
" 4	"	3 " "



3438

Fig. 3438.

No. 5-A. Curved. 3½ inch. long.



3439

Fig. 3439.

No. 6-B.	Curved.	5 inch. long.
" 7-B.	"	4 " "
" 8-B.	"	3 " "



3440

Fig. 3440.

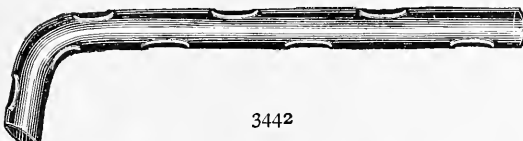
No. 9-C.	Curved.	3 in. long.
" 10-C.	"	4 " "
" 11-C.	"	5 " "



3441

Fig. 3441.

No. 12-D.	Curved.	3 in. long.
" 13-D.	"	4 " "
" 14-D.	"	5 " "



3442

Fig. 3442.

No. 15-E. Curved. 4½ in. long.



3443

Fig. 3443

No. 16-F. Curved. 4 in. long.

GYNÆCOLOGICAL—DRAINAGE TUBES.

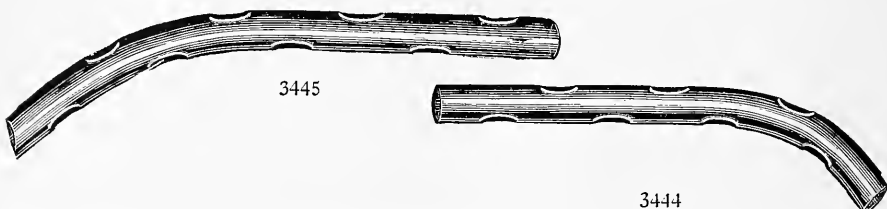


FIG.

- *3444 No. 17-G Curve $3\frac{1}{2}$ inches long.
 *3445 " 18-H " $3\frac{1}{2}$ " "

SET No. 2.

$\frac{3}{8}$ inch Tubing consisting of Nos. 19 to 24 inclusive.

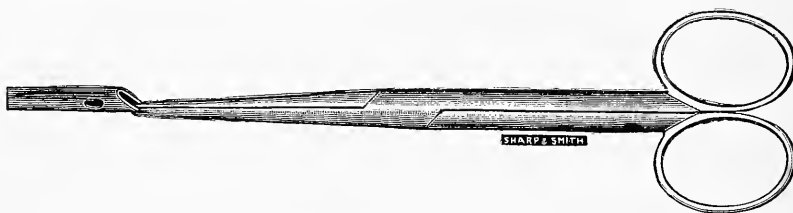
Curves correspond with Set No. 1, as shown by the Letters.

- 3446 No. 19-B Curve 6 inches long.
 3447 " 20-D " 7 " "
 3448 " 21-E " 6 " "
 3449 " 22-G " $6\frac{1}{2}$ " "
 3450 " 23 Straight $5\frac{1}{2}$ " "
 3451 " 24-C Curve 7 " "

Other Curves and Lengths being desired, can be furnished by sending drawing, stating length and size Tubing.

For other Drainage Tubes see index.

Fig. 3452. Sharp & Smith's Drainage Tube Introducing Forceps..... \$2 00



3452

- | | | |
|-------|---|-------|
| 3453 | Chamberlain's Glass Uterine Drainage Tube..... | \$ 85 |
| *3454 | Dr. J. C. Hoag's modification Chamberlain's Glass Uterine Drainage Tube, double curve and grooved, holes in side | 1 00 |
| 3455 | Dr. J. C. Hoag's modification Chamberlain's Glass Uterine Drainage Tube, double curve and grooved, and holes in end. | 1 00 |
| *3456 | Dr. J. C. Hoag's modification Chamberlain's Glass Uterine Drainage Tube, bulbous, with perforations..... | 60 |
| *3457 | Dr. J. C. Hoag's modification Chamberlain's Glass Uterine Drainage Tube, bulbous, with slots..... | 75 |

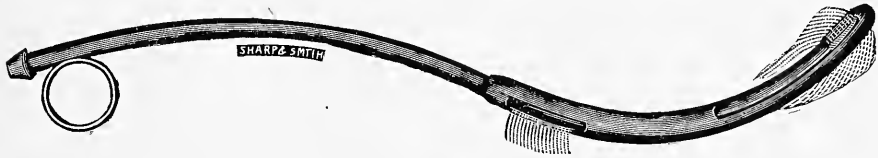


3454

All Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—DOUCHE TUBES.

FIG.		
*3458	Bozeman's Uterine Douche Tube.....	\$1 75
*3459	Kelly's Modification of Bozeman's Uterine Douche Tube.....	3 50
*3460	Jennison's Uterine Douche Tube.....	1 50
3461	" " " " with Syringe.....	2 00
*3462	" (Wigmore's) " " ".....	1 50
*3463	" modified " " ".....	2 00



3458



3456



3457



3460



3462



3463

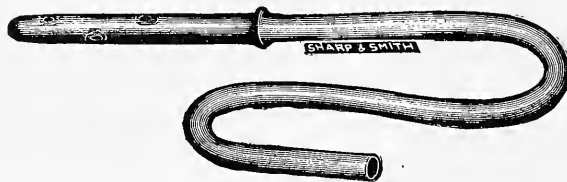


3459

All instruments designated by a * are illustrated.

GYNÆCOLOGICAL.

- FIG.
 *3464 Dr. Wm. S. Gardner's Tube for Intra-Uterine Irrigation.....\$ 2 50
 *3465 Dr. W. Thornton Parker's Soft Rubber Velvet-Eyed Tube for
 Injecting and Measuring the Uterus.... 1 25
 *3466 Bozeman's Utero-Vesico-Urethral Drainage Support with Urinal 9 00



3464

PUERPERAL SAPRÆMIA AND A METHOD OF INTRA-UTERINE IRRIGATION.

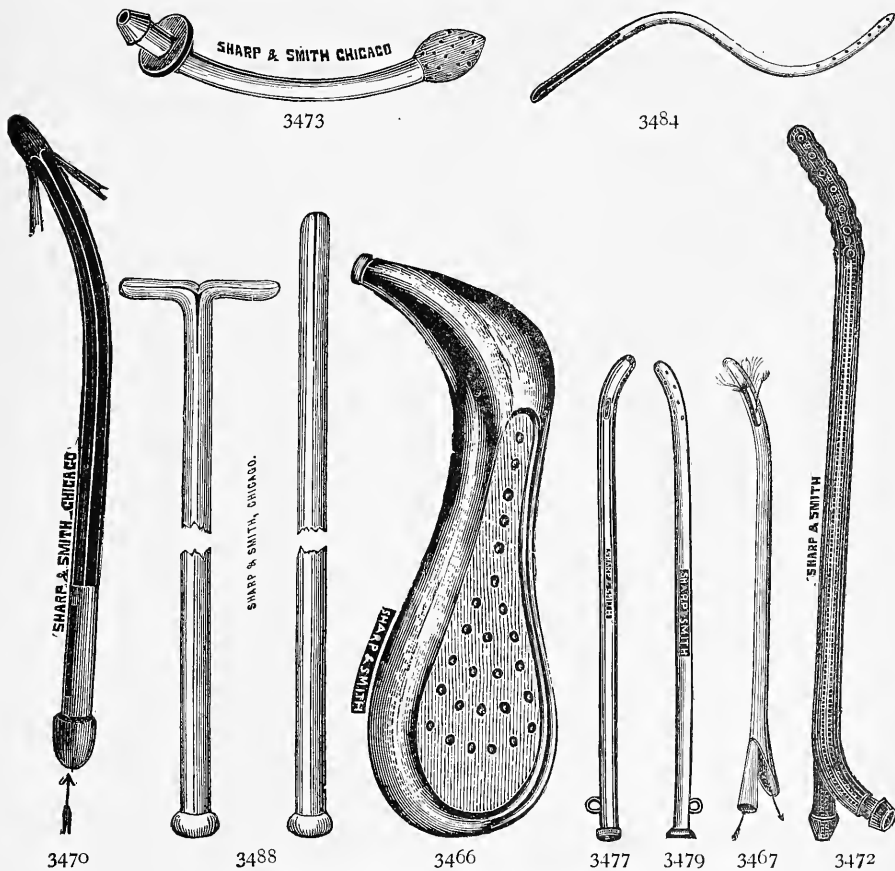
Fig. 3464. For giving vaginal injections a syringe, made on the pattern of a Davidson, with hard rubber finishings, is used. For intra-uterine injections the same syringe, with a soft rubber intra-uterine injection tube, is used. This tube is twelve inches long and seventeen (American) caliber. The point is round, smooth, and closed. Three inches from the point is a slightly raised collar. Between the point and collar, but grouped rather toward the point, are three large lateral velvet-eyed openings. The whole instrument is perfectly smooth and flexible; there is not a rough edge or corner that can scratch the most delicate surface. The smallest nozzle of the syringe being on, the open end of the tube is slipped over it. The syringe and tube are then filled with corrosive sublimate solution, and the tube is introduced into the uterus by grasping the point between the index and middle fingers of the right hand, allowing the remainder of the tube to rest in the palm of the hand; then carry the tube between the fingers up to the external os; reflect the point into the cervical canal; grasp the middle of the instrument between the thumb and the finger of the left hand, and gently push it in until the collar is felt just at the external os. You then know that the end of the tube is well into the cavity of the uterus, and still a safe distance from the fundus. There is some danger from introducing even the softest instrument too far into the puerperal uterus. The solution is then forced into the uterus until it returns clear. About a quart is the quantity usually used, though as much as a gallon is sometimes necessary. The nozzle of the syringe is slipped out of the tube, the latter being left in place to assist in the exit of *all* the injected fluid. When the tube comes out of itself, it is placed in a solution of corrosive sublimate, 1-2000, until wanted.



3465

GYNÆCOLOGICAL.

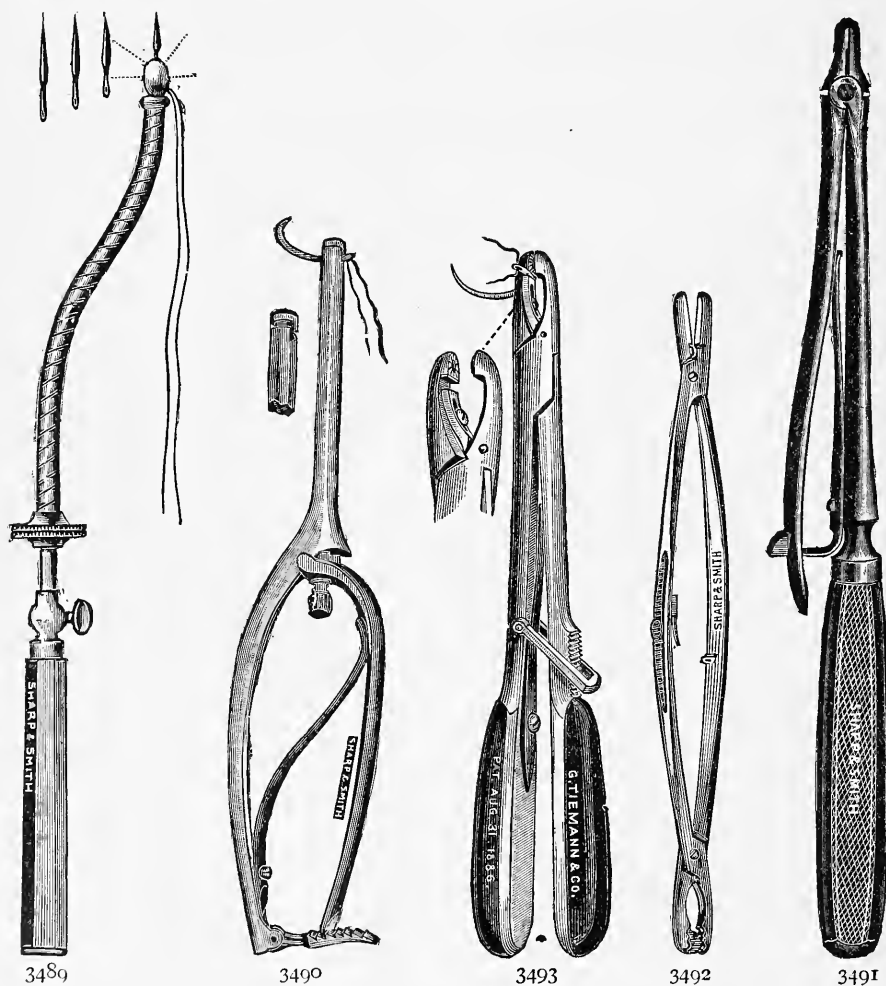
FIG.			
*3467	Nott's Double Current Catheter, silver.....	\$2 75	
3468	" " " plated	1 75	
3469	Reliquet's Double Current Catheter	1 50	
*3470	Skene's Reflux Catheter, metal.....	1 75	
3471	" " " hard rubber.....	1 75	
*3472	" Double Perforated Catheter	1 75	
*3473	" Goodman's Self-Retaining Catheter	65	
3474	Byrne's Reflux Catheter, silver	1 85	
3475	" " " rubber	3 00	
3476	" Catheter Adjuster.	1 50	
*3477	Silver Female Catheter.....	65	
3478	Plated "	40	
*3479	" " small holes	50	
3480	Jointed "	75	
3481	Hard Rubber Female Catheter	65	
3482	Leavitt's Soft Rubber Female Catheter.....	40	
3483	Flexible Metal Female Catheter	50	
*3484	Sims' Sigmoid " " silver	1 25	
3485	" " " plated.....	75	
3486	" " " hard rubber.....	50	
3487	" Improved Sigmoid Female Catheter.....	75	
*3488	Dowse's Self-Retaining Soft Rubber Catheter ..	\$1 00 to 1 25	



Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—NEEDLE HOLDERS.

FIG.		
*3489	Bozeman's Spiral Needle Carrier.....	\$ 3 75
*3490	Ady's Uterine Needle Holder.....	7 50
*3491	Ethridge's Uterine Needle Holder.....	3 75
*3492	Dr. A. J. Skene's Uterine Needle Holder.....	5 50
*3493	Tiemann & Co.'s " " ".....	4 50
*3494	Thiersch's " " " and Spindles.....	7 50
*3495	Abbe's Modification of Hagedon's Uterine Needle Holder....	3 00
*3496	Hanks' Uterine Needle Holder.....	3 00
*3497	Fowler's " " ".....	3 00
3498	Thomas' " " ".....	3 50
3499	Wyeth's " " ".....	3 40

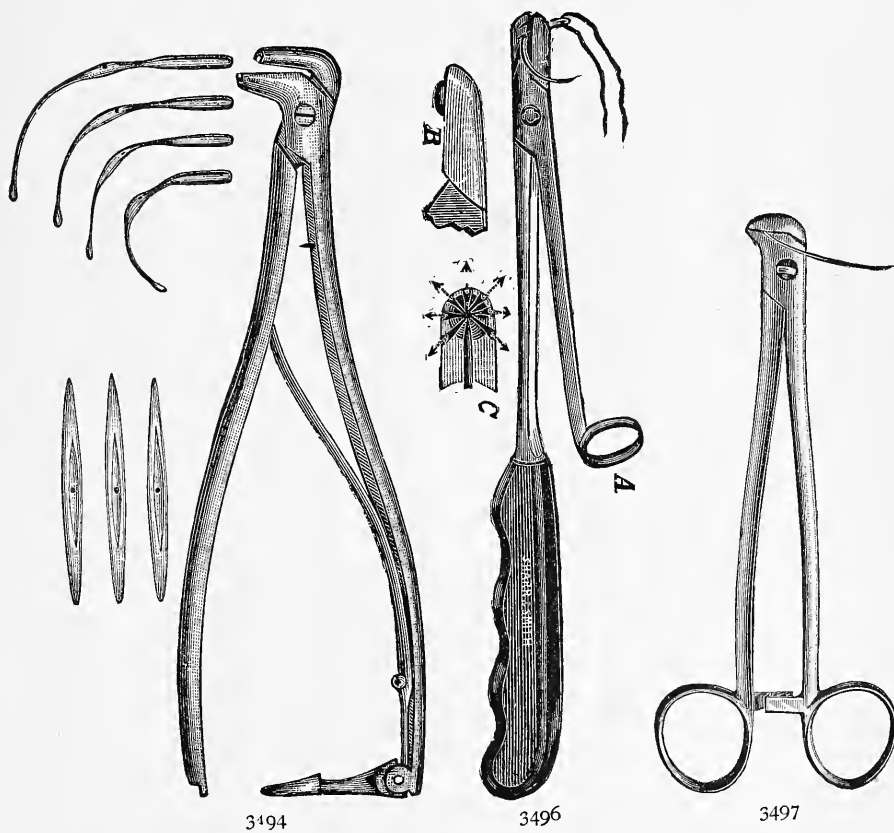


All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—NEEDLE HOLDERS.

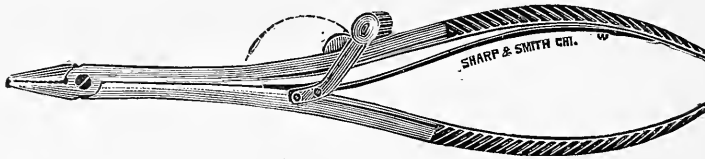


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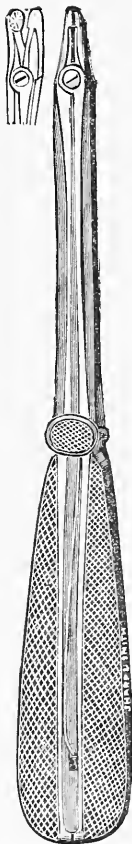


GYNÆCOLOGICAL—NEEDLE HOLDERS.

FIG.			
*3500	Philadelphia Uterine Needle Holder.....		\$4 00
*3501	Fritch's or (Paris) Uterine Needle Holder ..		3 50
*3502	Emmet's Uterine Needle Holder.....		2 25
*3503	Sims' plain " " " ".....		1 85
3504	" catch " " " ".....		2 00
*3505	Russian " " " ".....		3 00
3506	" Improved Uterine Needle Holder.....		3 25
*3507	Reiner's Uterine Needle Holder.....		3 00
3508	Fowler's " " " with Russian handle.....		5 00
*3509	Gibbon's " " " ".....		4 50
*3510	Hagedorn's " " " small.....		5 00
3511	" " " " large.....		6 00



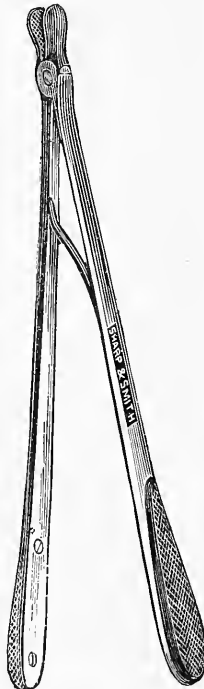
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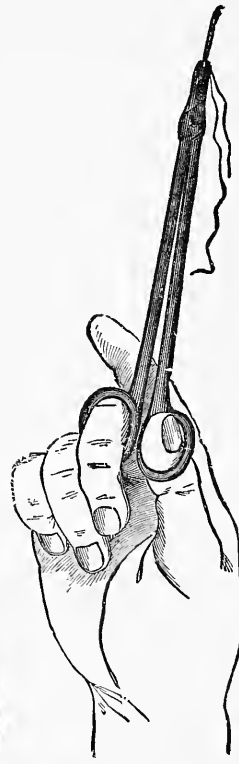
3500



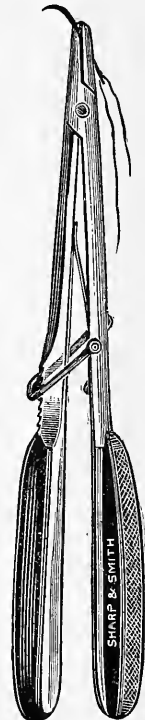
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3502



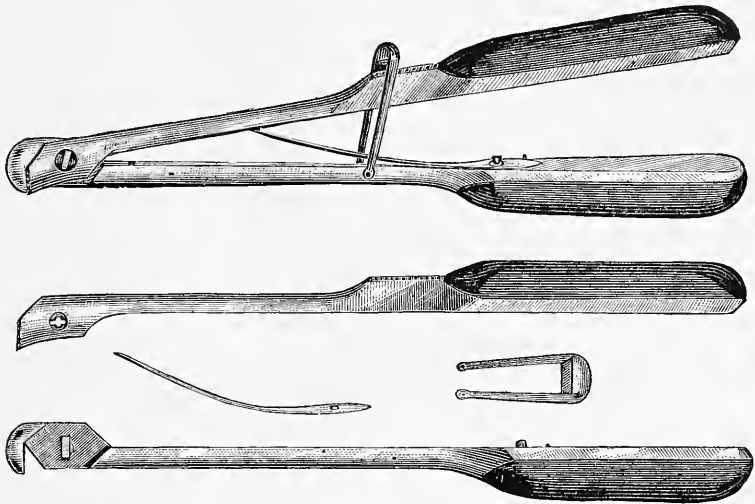
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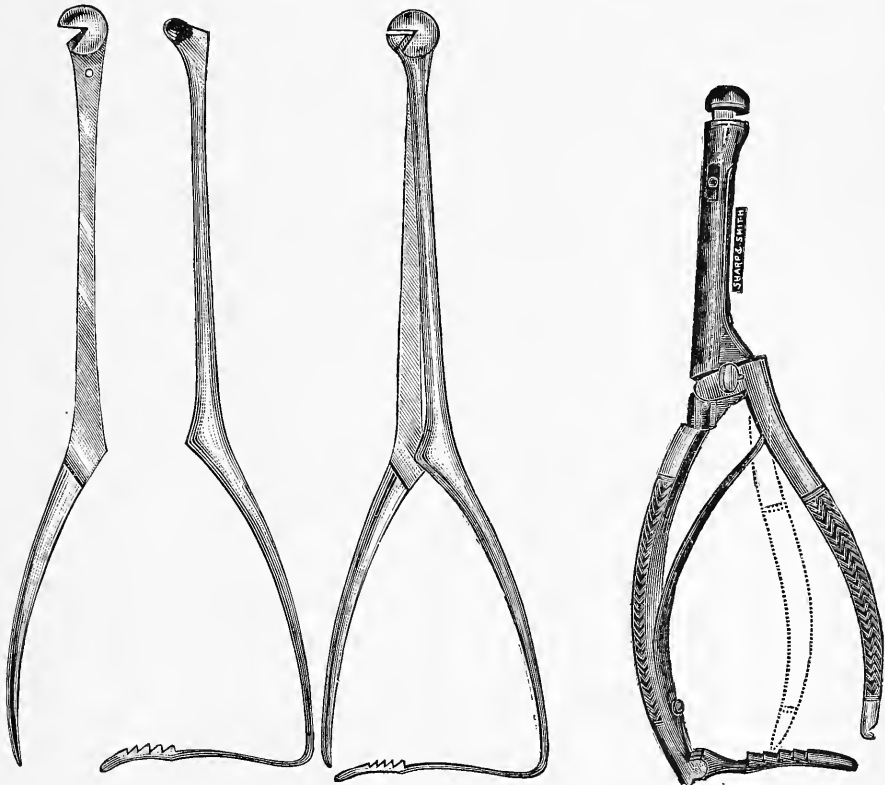
3505

All Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—NEEDLE HOLDERS.



3508

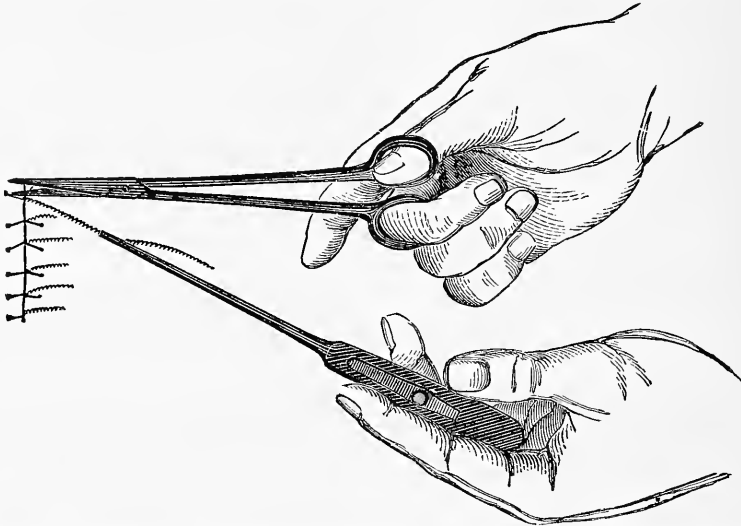


3509

3510

GYNAECOLOGICAL—NEEDLE HOLDERS.

FIG.	
*3512	Stimson's Uterine Needle Holder..... \$2 75
*3513	Dr. C. A. Von Ramdohr's Combined Needle Forceps..... 7 50
*3514	Dr. Wm. K. Otis' Aseptic Needle Holder for Hagedorn or Round Needles..... 8 25



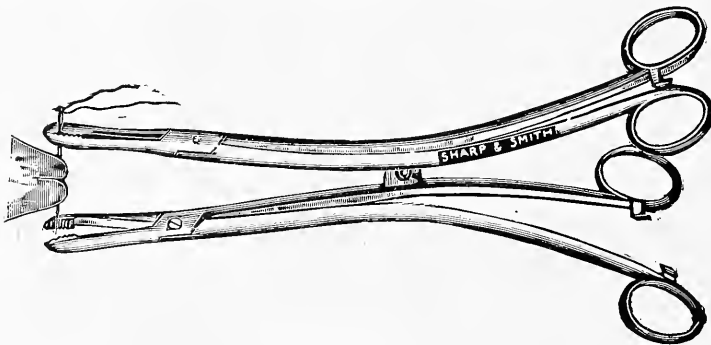
Cut showing the Manner of Operating with Sims' Wire Twisting Forceps and Scissors.

COMBINED NEEDLE FORCEPS.

By C. A. VON RAMDOHR, M. D., Instructor in Gynecology and Operative Midwifery, New York; Post Graduate Medical School.

In operating for lacerated cervix a great deal of time is occupied in passing the sutures. Usually the needle is first passed through one lip, extracted, introduced into the other one, and extracted again. The reason for this manœuver is that it is the harder to catch the point of the needle with the extracting forceps the more it is embedded in the surrounding tissues; and in passing the needle through both lips at the same time, it will always leave the point more or less deeply embedded.

Any simple contrivance enabling the operator to pass a needle through both lips at the same time, and extracting it without difficulty, thereby shortening the time of operation, is well worthy of consideration.



The combined needle forceps answers such a purpose. It consists of a pair of needle forceps which may be united or separated by a pivot and notch lock at their middle.

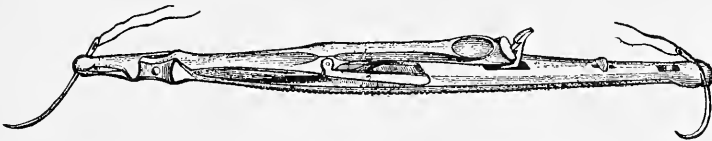
The *modus operandi* is as follows: A straight needle (Pallen's trocar pointed by preference, longer or shorter according to the thickness of the denuded cervix) is clasped at a right angle in the right hand (pivot) forceps. It is pushed through both lips, then the open left hand forceps (notch) is hooked on the pivot and the open branches are pressed against the cervix until the point of the needle lies, as it always must lie, according to the construction of the forceps, between the branches. The left hand forceps is then closed and the right one opened and withdrawn, and the point of the needle grasped by the left forceps is extracted.

In this way I have been able to pass four sutures in a unilateral laceration inside of four minutes, certainly not very slow time.

AN ASEPTIC HOLDER FOR HAGEDORN AND ROUND NEEDLES.

BY WILLIAM K. OTIS, M. D.

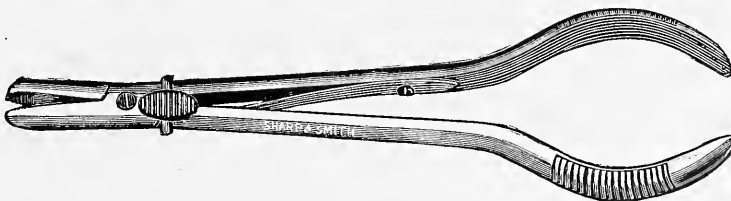
The manifest advantages of the Hagedorn needle and its very general adoption by American surgeons, together with the fact that most of the holders adapted for its use are both cumbersome and difficult to clean, led me, a year or two since, to modify probably the most popular holder ever invented for round needles (that of Dr. Henry B. Sands) in such a manner as to render it capable of firmly holding flat needles, and also of being more easily cleansed, without eliminating any essential feature of the original instrument. This instrument is easily understood by a reference to the illustration. The end for holding round needles is unchanged, except that it is placed at the opposite end of the instrument to that which it originally occupied. The end adapted for flat



3514

needles consists of the solid lower bar, the end of which is turned upward at a right angle; a sliding bar forced down upon this end by the powerful double lever, firmly grasps a needle placed between them. Several notches have been added to the original spring catch, in order to hold needles of different sizes.

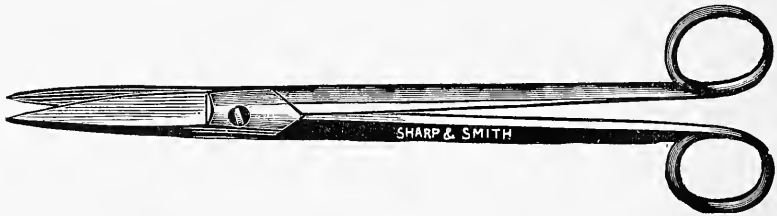
For cleaning, by simply turning the little button which holds down the sliding bar, the whole upper portion of the instrument may be raised, swung over on the axis of the joint, opening the round end, and disconnected. The last named joint has been constructed on a novel principle, recently introduced, and is more powerful and more easily manipulated than the old French button-hole joint. This instrument, owing to its compactness, is particularly adapted for its use in the pocket case, and holds a needle very firmly, and considerable practical use in the hands of competent surgeons has proved its efficiency.



3512

GYNÆCOLOGICAL—SCISSORS.

FIG.					
*3515	Sims' Straight Uterine Scissors, sharp or blunt.....				\$2 00
*3516	" Curved on Flat Uterine Scissors.....				2 50
3517	" Angular " "				3 00
*3518	Emmet's Full Curve " " R. or L.....			each.	3 25
*3519	" Half " " "			"	3 25
3520	" Angular " " "			"	3 25
*3521	" Lesser Curve " " "			"	3 00
3522	" Wire Cutting " " "			"	3 35
*3523	Pallen's (A and B) " " "			"	3 75
*3524	Bozeman's Angular " " "			"	2 50
*3525	" Curved Down Handles, Uterine Scissors.....			"	3 25
*3526	" " Right and Left " "			"	3 35
3527	Byford's Sharp Point Uterine Scissors.....				3 25
*3528	" Blunt " " "				3 25
*3529	Jenks' Perineum.... " "				3 00



3515



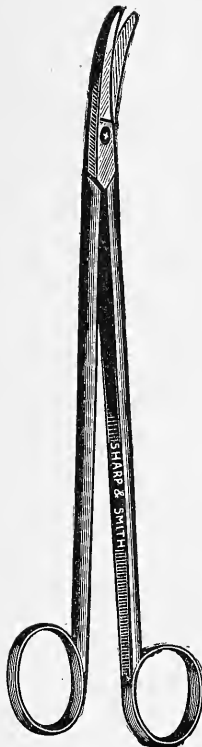
GYNÆCOLOGICAL—SCISSORS.



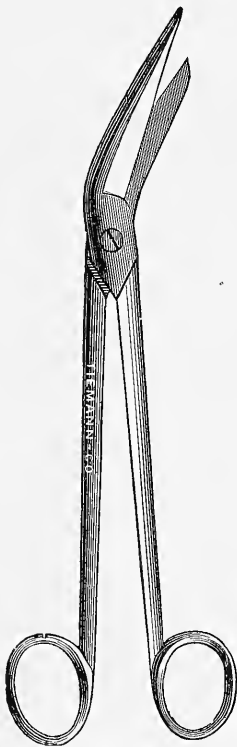
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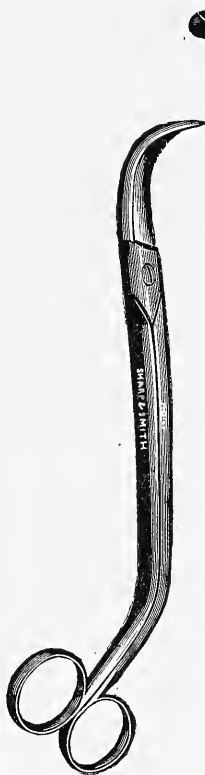
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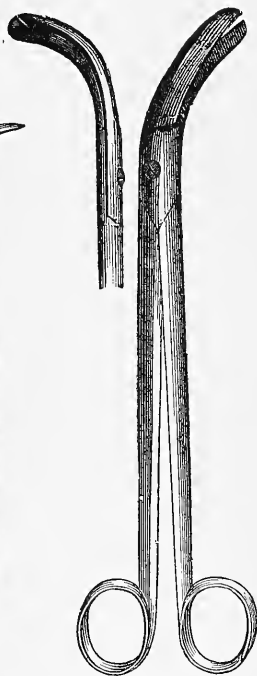
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3524



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3526

GYNÆCOLOGICAL—SCISSORS.

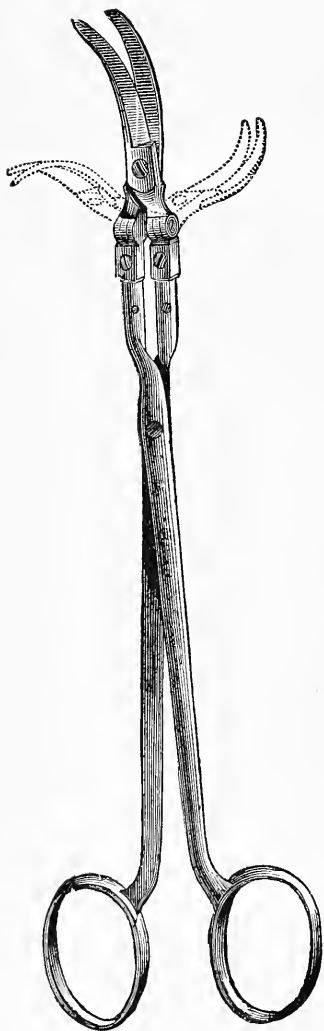
FIG.		
3530	Goodell's Uterine Scissors.....	\$3 25
3531	Clark's Saw Tooth Uterine Scissors, straight.....	3 75
*3532	" " " " " curved.....	4 50
*3533	Cervix Scissors for Amputation of the Cervix.....	5 00
*3534	Keuchenmeister's Scissors for dividing the Neck of Uterus....	4 50
3535	Dawson's " " " " " ".....	4 00
*3536	Smith's Wire Cutting Scissors.....	3 00
*3537	Heywood Smith's Uterine Scissors.....	9 00



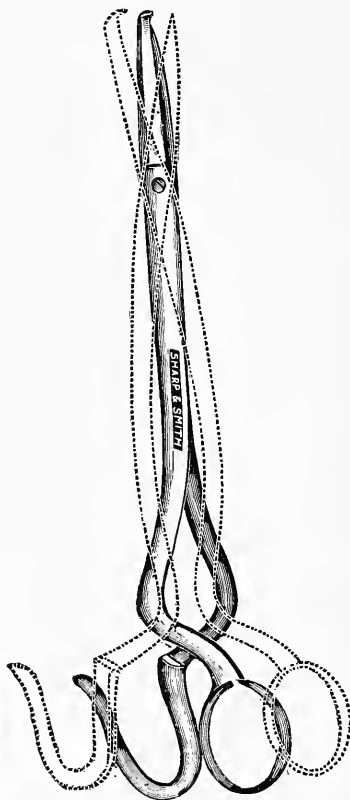
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3536



3537



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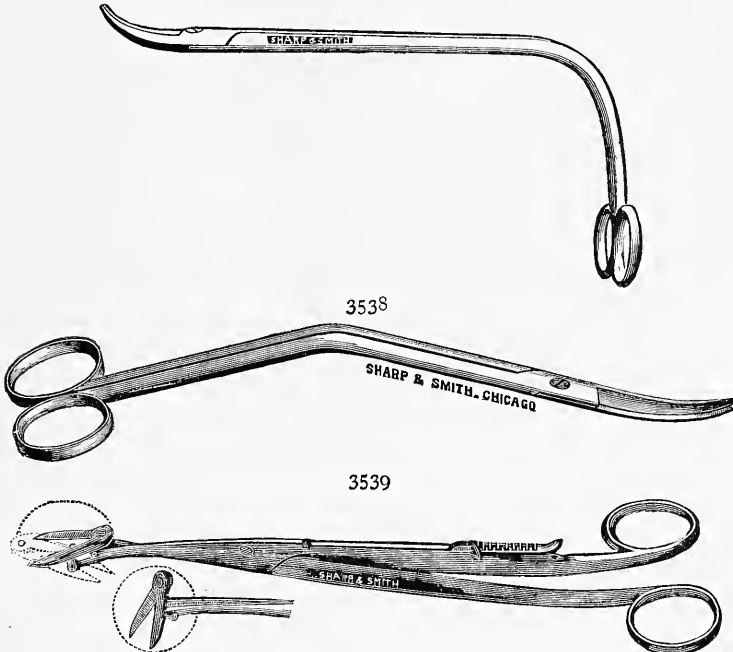


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GYNÆCOLOGICAL—SCISSORS.

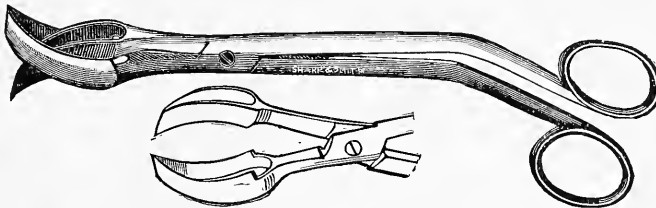
FIG.

*3538	Wilson's Wire Cutting Scissors.....	\$3 25
*3539	Pratt's Uterine Scissors.....	3 00
*3540	T. & Co.'s Revolving Blade Uterine Scissors.....	6 25
*3541	Skene's (new) Hawk Bill " "	7 50



3540

The rotation of the blades is produced by the index finger of the same hand which operates. By depressing the lever near the handles and sliding it forward or backward, the scissors are placed in any required position, and held firmly by allowing the lever to snap into one of the notches; in the same manner the position can be constantly changed at pleasure. The instrument has been frequently used with much success in many operations where no other scissors could have been employed.



3541

The parts of these scissors are made to seize the angle formed by the junction of the two flaps as far as appears necessary. The flaps are brought together by the aid of the forceps on each side, so as to bring the tissues more within the grasp of the scissors. The blades of the scissors are then closed, and a strip is removed from above downward on each flap.

GYNÆCOLOGICAL—NEEDLES.

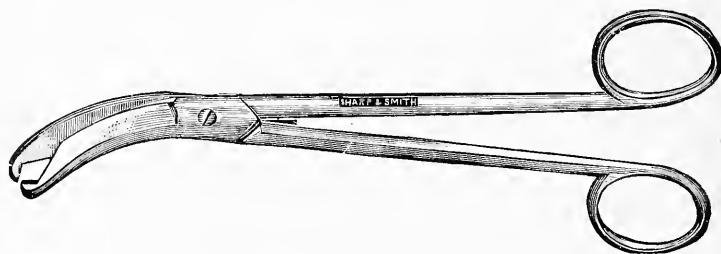
FIG.		
*3542	Dr. H. T. Hanks' Trachelorrhaphy Scissors.....	\$3 75
*3543	Emmet's Cervix Needles.....per doz.	1 00
*3544	Sims' " "	1 25
*3545	Emmet's Perineum "	1 00
*3546	Sims' " "	1 25
*3547	Silver Wire Needles.....each.	20
3548	Aluminium Wire.....per foot.	45
3549	Silver (pure) Wire all sizes..... " coil.	35
3550	Lead Wire..... " yard.	25

TRACHELORRHAPHY SCISSORS.

TRANSACTIONS OF THE OBSTETRICAL SOCIETY OF NEW YORK.

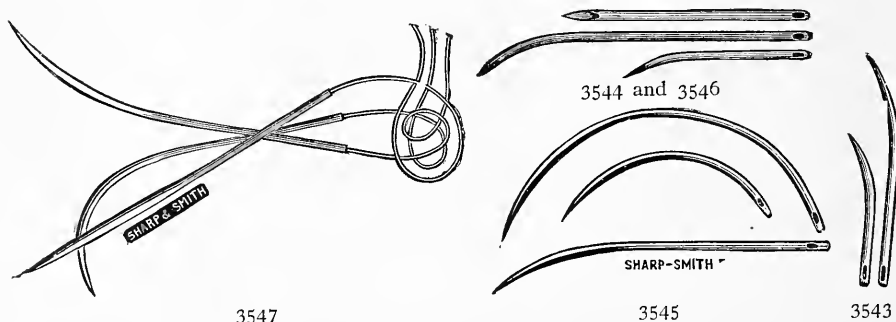
STATED MEETING, NOVEMBER 15, 1887.

The President, Dr. H. T. Hanks, showed a pair of strong curved scissors with blunt points, ground in such a manner that the blades meet and begin to cut *first* at the very end or distal extremity. The figure shows quite clearly the edges of the blades ground so that there is an elongated diamond shaped opening between them when they are about to be closed. It will be noticed that, when the blades are approaching, it is quite impossible for the tissue to retract or slide away from the scissors. On using these scissors, it is found that they cut their way quickly into the most dense and most decidedly cicatricial tissue. These shown are bent and ground with special reference for use in Dr. Emmet's operation on the cervix. They will take the place of the very



3542

excellent tenaculum-pointed scissors of Dr. Dawson. The instrument here shown cuts with even less effort, does its work more exactly than the Dawson instrument, and leaves less unevenness after completion, as it is sure of cutting all the tissues between the blades.



3547

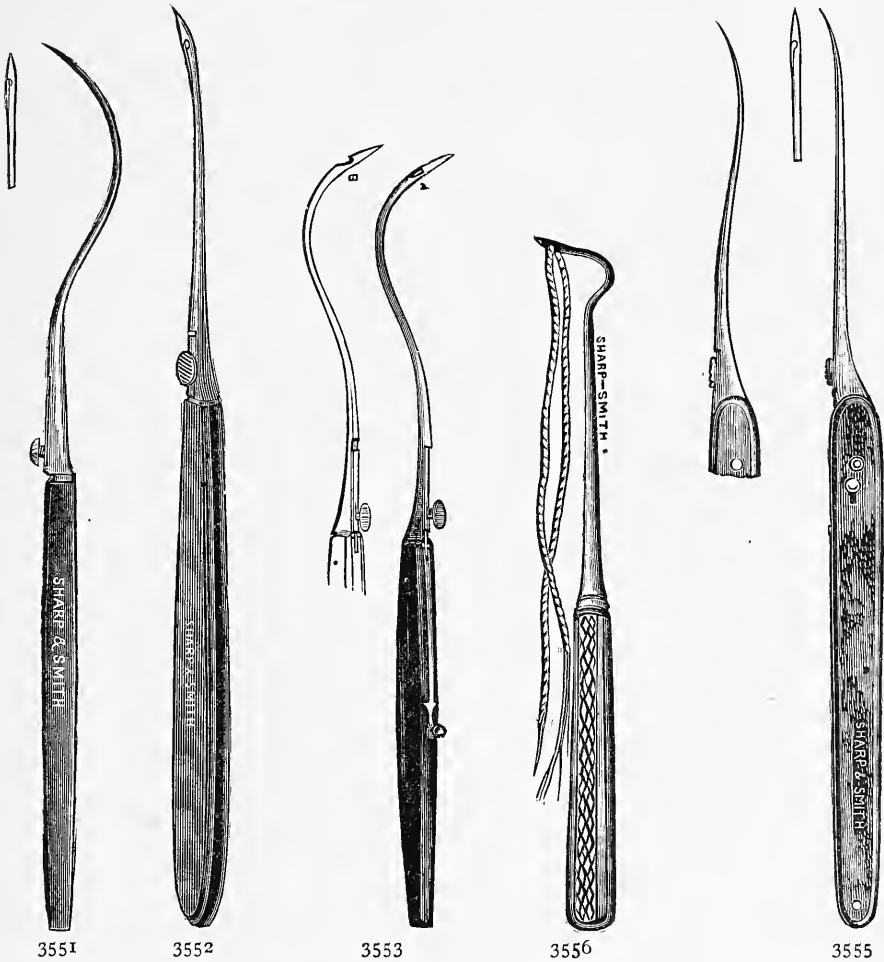
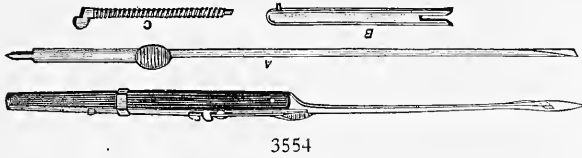
3545

3543

GYNÆCOLOGICAL—NEEDLES.

FIG.

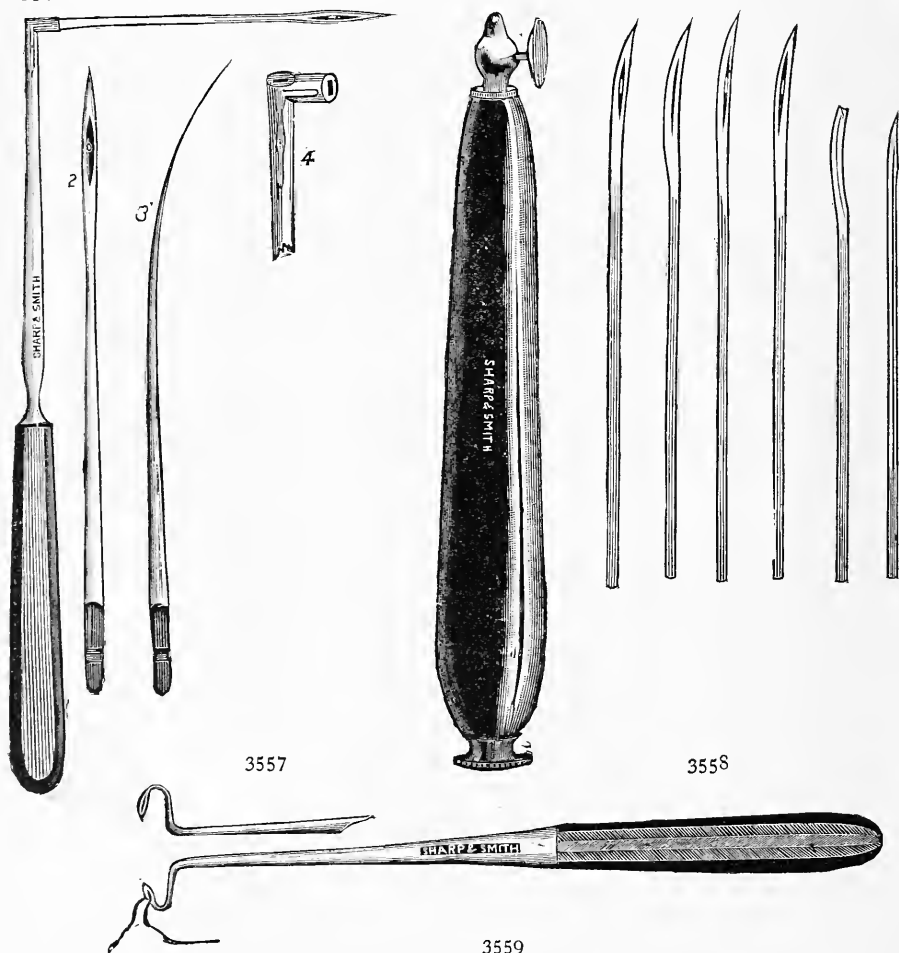
*3551	Rivedon's Perineum Needle, full curved.....	\$3 50
*3552	" " " half curved.....	3 50
*3553	" " " (modified by Keyes).....	7 00
*3554	" " " straight...(" ").....	7 00
*3555	" " " in folding shell handle.....	3 75
*3556	Whitehead's Helical "	1 30



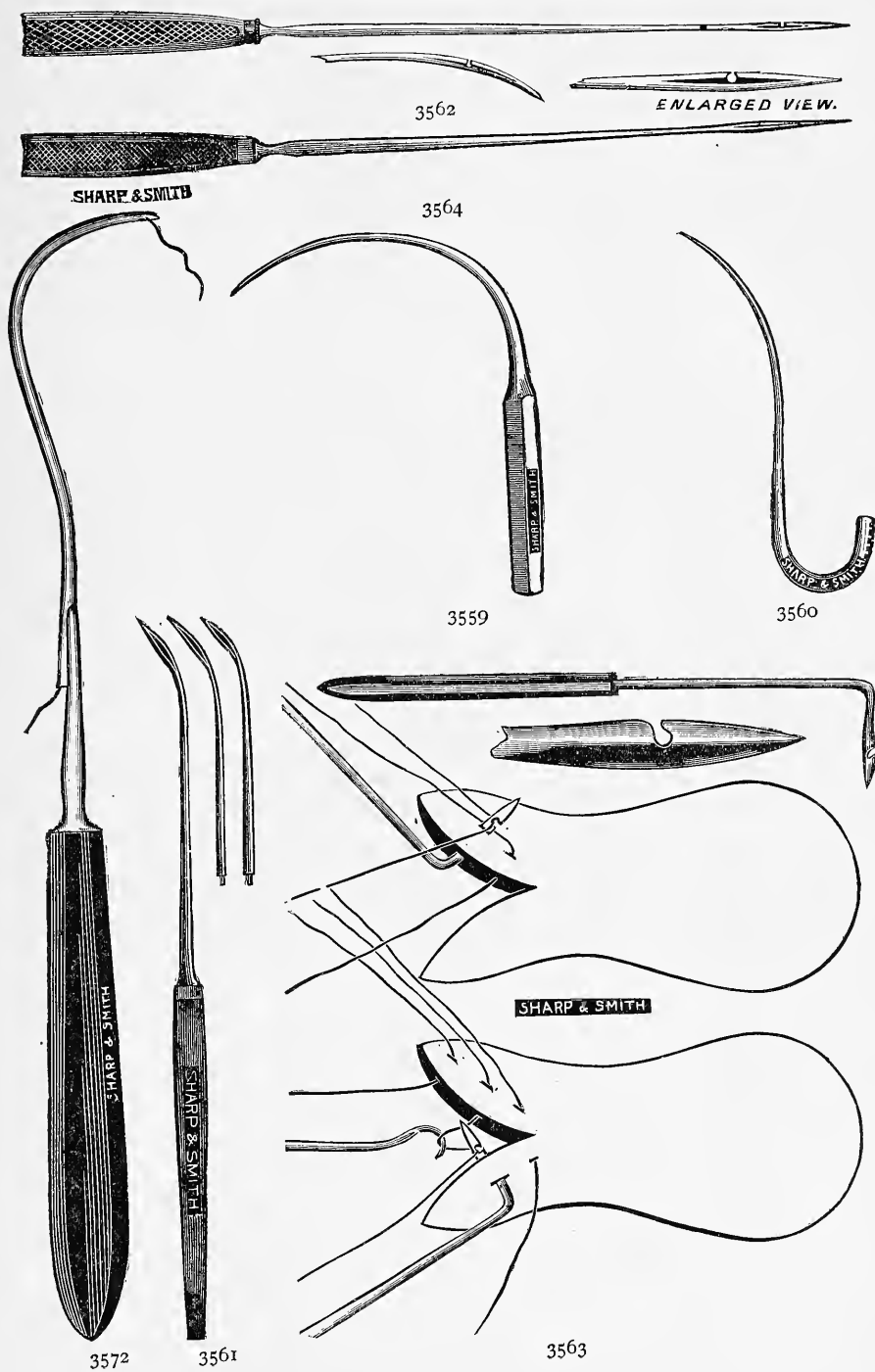
Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—NEEDLES.

FIG.			
*3557	Agnew's Perineum Needle and Needle Holder.....	set \$	3 40
*3558	Parker's " " set of six in handle, handle serves as a case for the needles.....		3 75
*3559	Wilson's Perineum Needle.....		1 00
*3560	" " right or left.....	each	1 50
*3561	Peaslee's " " set of three.....		2 25
*3562	Skene's " "		1 25
*3563	Jackson's " "		2 25
*3564	Straight " "		55
*3565	Curved " "		55
*3566	Stone's " "		1 50
*3567	Thomas' " "	doz.	75
*3568	Papine's " "		65
*3569	Goodell's " "		25
*3570	Ashton's " "		75
*3571	Knox's " "		75
*3572	Emmet's Canulated Needle.....		2 00



GYNÆCOLOGICAL—NEEDLES.

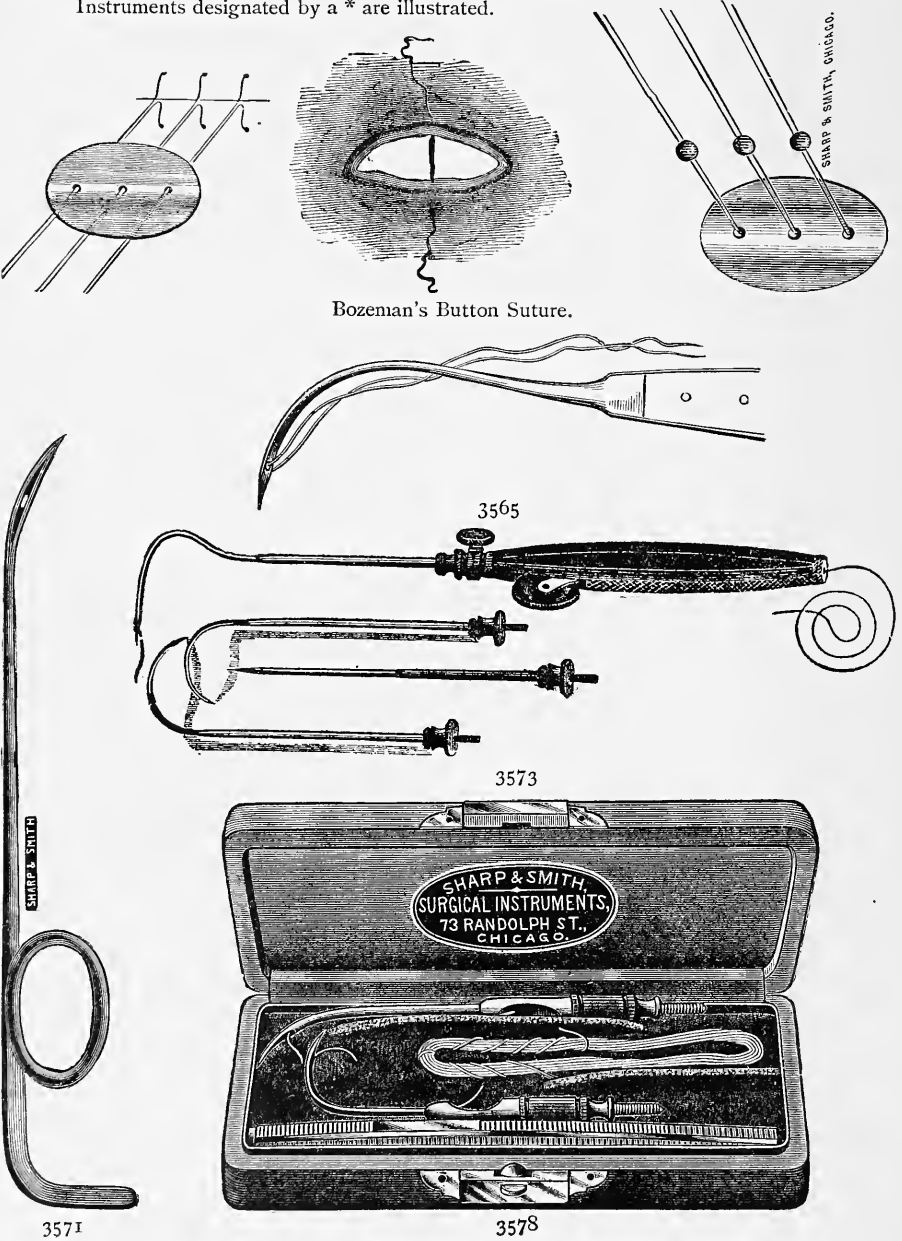


GYNÆCOLOGICAL—NEEDLES.

FIG.

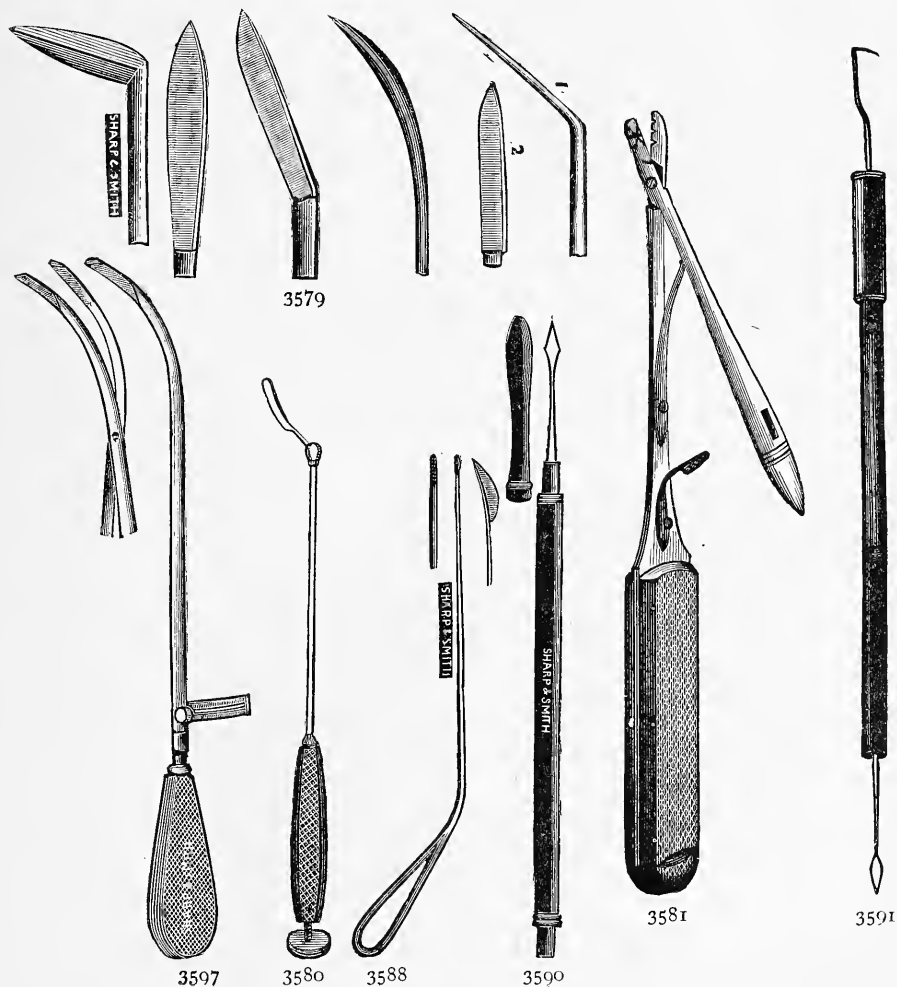
*3573	Pease's Canulated Needle.....	\$9 00
3574	McClellan's Canulated Needle ...	1 75
3575	Simpson's " "	1 50
3576	Vandeworke's " "	3 75
3577	Atlee's " "	1 15
*3578	{ Sharp & Smith's Hollow Wire Needle, 2 Needles.....	3 00
	" " " " " 3 "	4 00

Instruments designated by a * are illustrated.



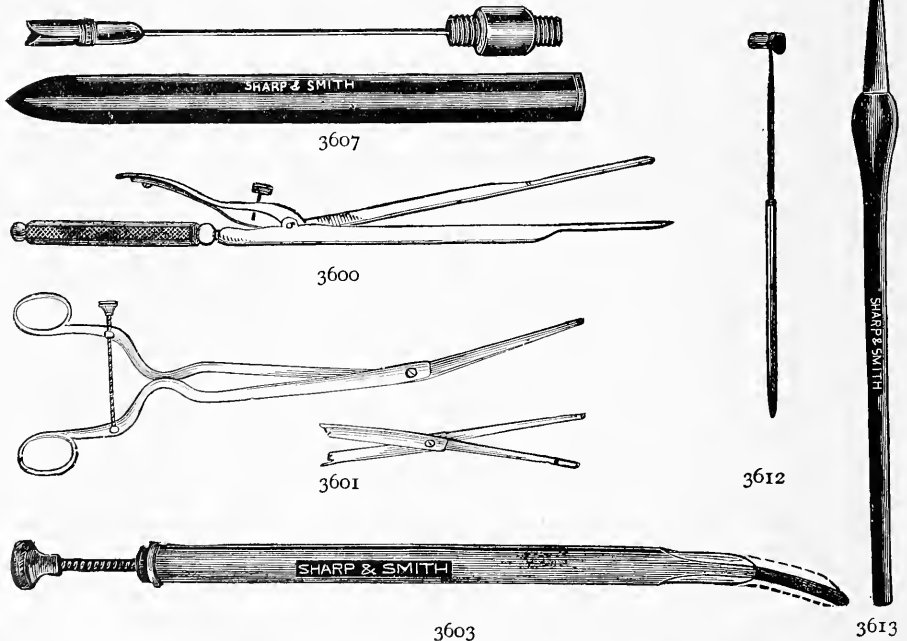
GYNÆCOLOGICAL—UTERINE KNIVES.

FIG.					
*3579	Sims' Straight Uterine Knife, No. 2	.....	\$	1	10
*3579	" Right or Left Uterine Knife No. 1	.....	each	1	10
*3579	" Angular " " 3	.....	"	1	25
*3579	" Double Edge " " 4, curved or flat	.....	"	1	35
*3579	" Scalpel " " 5	.....	"	1	10
*3579	" Bent Down " " 6, double edge	.....	"	1	50
*3580	" Revolving " "	.....		3	25
*3581	" Latest " " 4 blades and holder	.....		7	50
3582	Emmet's " "	.....		5	00
3583	Bozeman's " "	.....		1	25
3584	" Angular " "	.....		1	25
3585	Civiale's Meatus Knife	.....		4	50
3586	Double Edge Uterine Knife	.....		1	25
3587	Right and Left " "	.....	each	1	25
*3588	Skene's Uterine Knife and Probe	.....			75



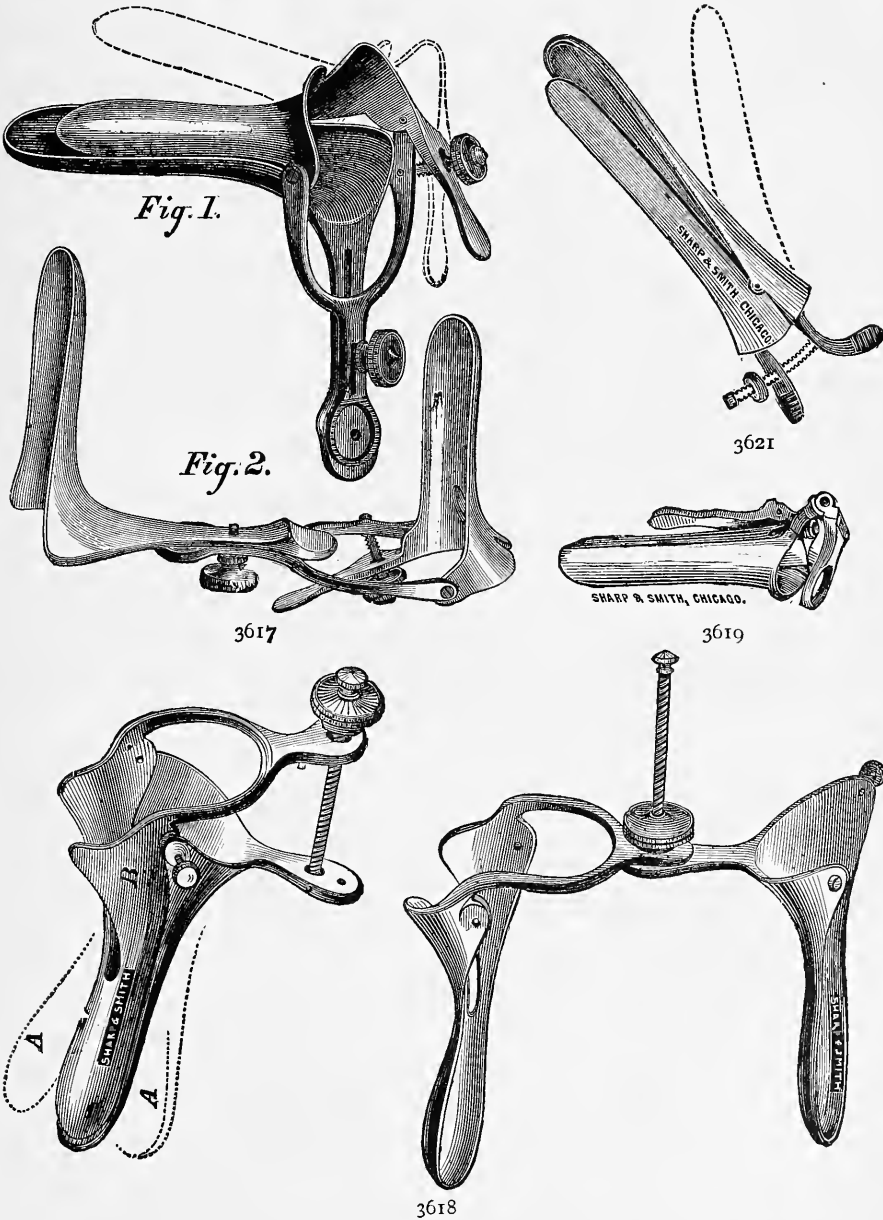
GYNÆCOLOGICAL—KNIVES AND SCARIFIATORS.

FIG.			
3589	Barker's Uterine Scarifier.....		\$2 25
*3590	Buttles' " " Spear Point.....		1 00
*3591	" " " with Hook.....		1 50
3592	Chapman's " " ".....		1 10
3593	" " " folding.....		2 00
3594	Nott's " " ".....		75
3595	Peaslee's " " ".....		3 50
3596	Storer's " " ".....		4 50
*3597	Skene's " " and Sound.....		4 50
3598	Cutter's " " ".....		
3599	White's Hysterotome.....		9 00
*3600	Simpson's " ".....		5 00
*3601	Stohlman's " ".....		5 50
3602	Peaslee's " ".....		5 00
*3603	Peaslee's Uterotome.....		3 25
3604	" " two blades.....		5 00
3605	Edwards' Self-Grasping Uterine Caustic Holder.....		2 25
3606	Byford's Platina Cup " " ".....		2 50
*3607	" Silver " " ".....		1 50
3608	Earle's Jointed " " ".....		1 85
3609	Gardner's " " ".....		2 25
3610	Sims' " " ".....		1 75
3611	Emmet's " " ".....		1 75
*3612	Lente's Platina Cup for Caustics.....		2 25
*3613	Alum Pencils mounted on handle.....		25
3614	Blue Vitriol Pencils, mounted on handle.....		25
3615	Chloride of Zinc ".....		25
3616	Nitrate of Silver.....		\$1 00



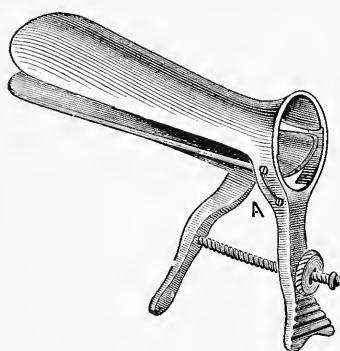
GYNÆCOLOGICAL—SPECULA.

FIG.		
*3617	Graves' Vaginal Speculum.....	\$ 2 75
*3618	Brewer's " ".....	2 50
	Both of the above are convertible into a "Sims" Speculum	
*3619	Cusco's Vaginal Speculum.....	2 50
3620	" Improved Vaginal Speculum.....	2 50
*3621	Jones' Vaginal Speculum.....	3 00

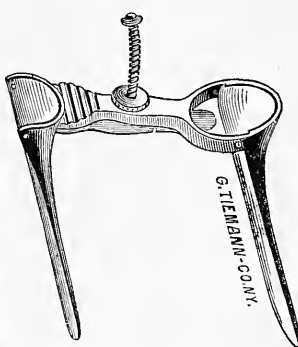


GYNÆCOLOGICAL—SPECULA.

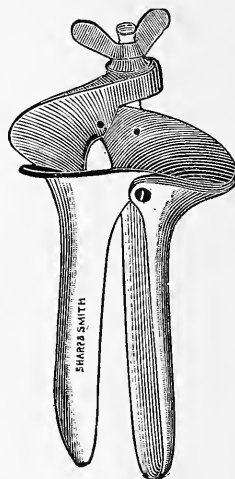
FIG.		
3622	Cuscoe's Vaginal Speculum (modified by Ludlam).....	\$ 3 00
	Figs. 3619, 3620, 3622 and 3623 have folding handles, and are convenient for carrying in the pocket.	
3623	Thomas' Modification of Cuscoe's Vaginal Speculum.....	2 50
*3624	Storer's Vaginal Speculum.....	2 50
*3625	McNutt's " " (Dr. McNutt of San Francisco)....	3 00
*3626	Taylor's " "	2 50
*3627	Howard's " "	2 50
*3628	Higbee's " " (3 sizes).....each	2 50



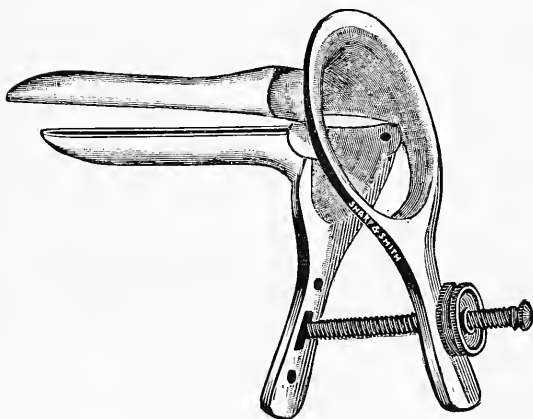
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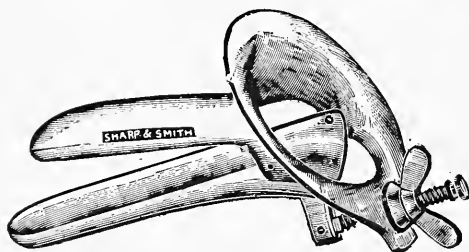
3624—Open.



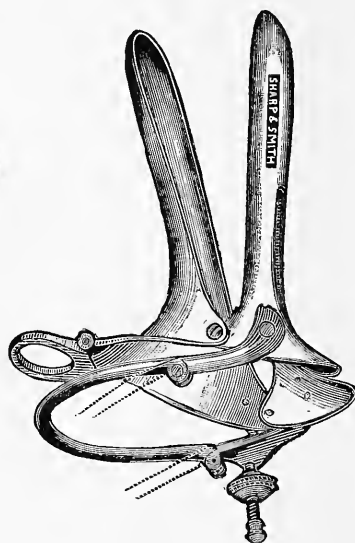
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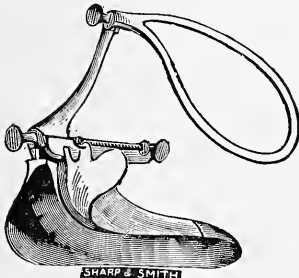
3627

Instruments designated by a * are illustrated.

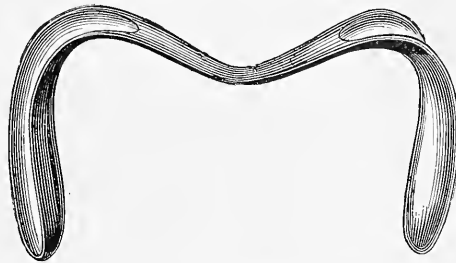
GYNÆCOLOGICAL—SPECULA.

FIG.

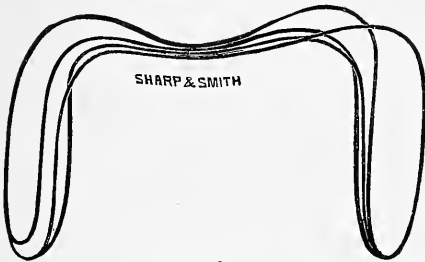
*3629	Sims' Vaginal Speculum	(made in five sizes).....	each	\$1 50
3630	"	"	"	2 25
*3631	"	"	"	1 50
*3632	"	"	"	2 25
3633	"	"	"	1 50
*3634	"	"	"	4 00
*3635	"	"	"	7 50
*3636	"	"	"	4 50
3637	"	"	"	2 50
*3638	"	"	"	3 00



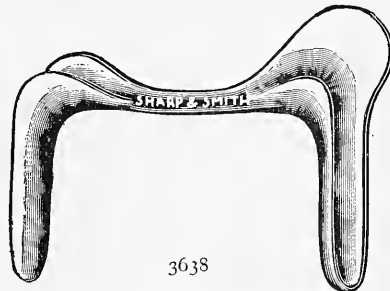
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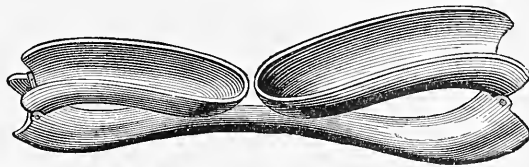
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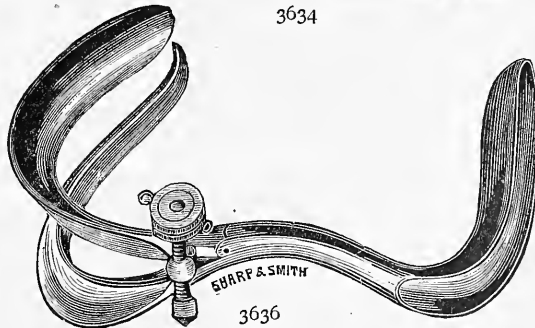
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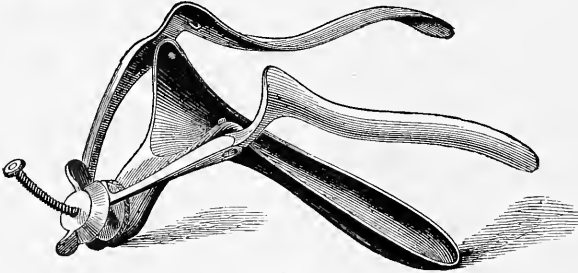
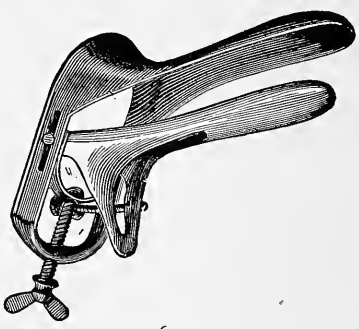
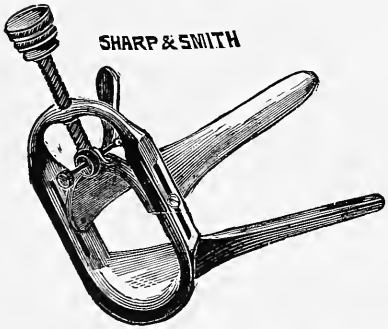
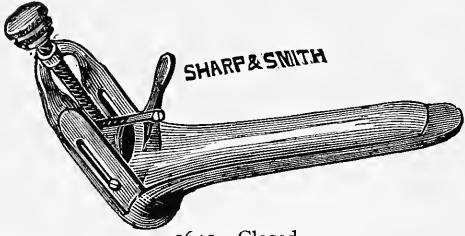
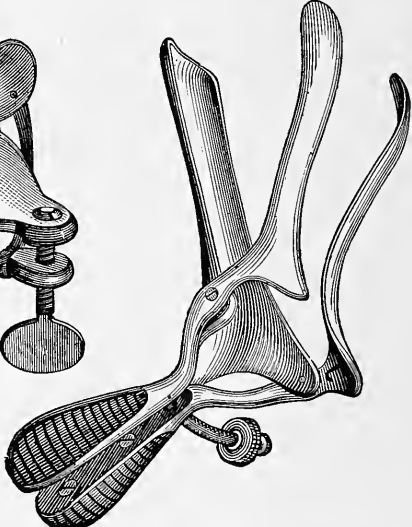
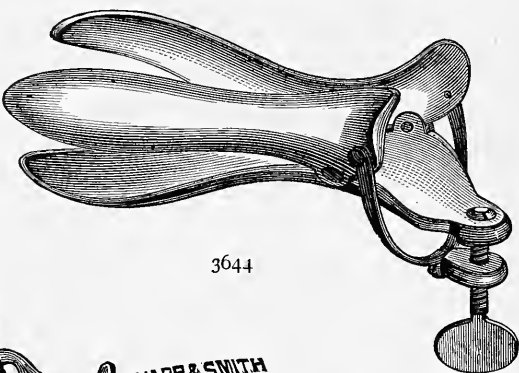
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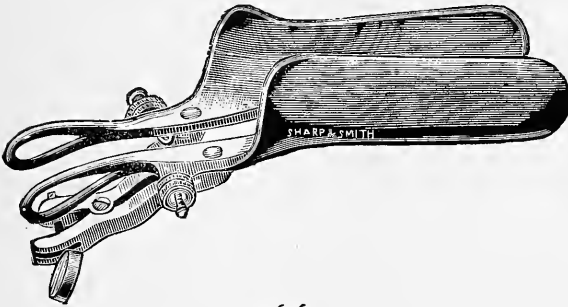
GYNÆCOLOGICAL—SPECULA.

FIG.			
*3639	Nott's	Vaginal Speculum, three blades.	\$2 50
*3640	Nelson's	" "	2 50
3641	Palmer's	" " three blades.	3 00
3642	"	" " two "	3 00
*3643	Jackson's	" "	3 00
*3644	Stohlman's	" "	6 00
*3645	Hale's	" "	3 00
	"	Virgin Vaginal Speculum.	3 00

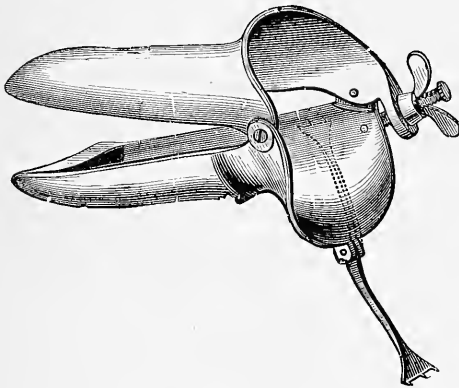


GYNÆCOLOGICAL—SPECULA.

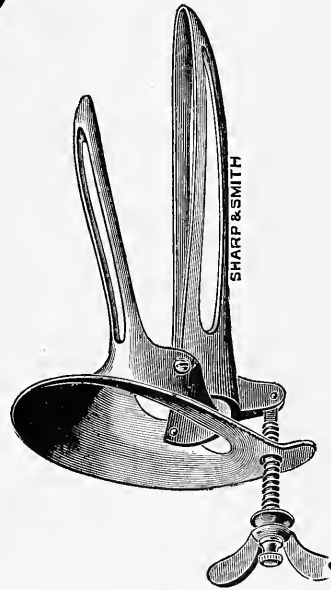
FIG.					
*3646	Goodell's Vaginal Speculum	.....		\$	6 00
*3647	Hunter's	.....			4 00
*3648	Miller's	.....	small		2 50
	"	.....	medium		2 50
	"	.....	large		2 50
*3649	Fitch's			2 50
*3650	Ethridge's	Fenestrated		2 50
3651	Byrne's			7 00
3652	Baxter's			3 75



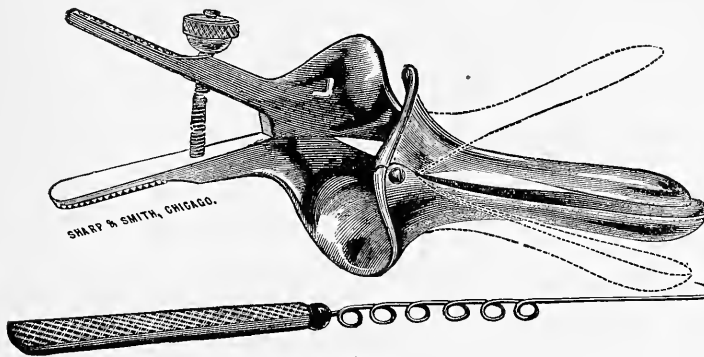
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3647



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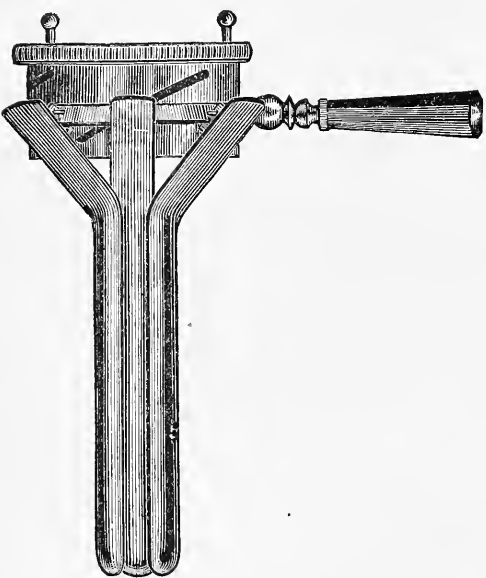
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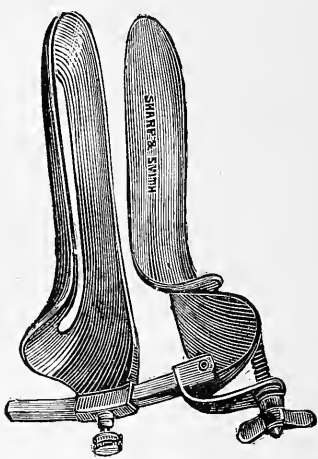
3650

GYNÆCOLOGICAL—SPECULA.

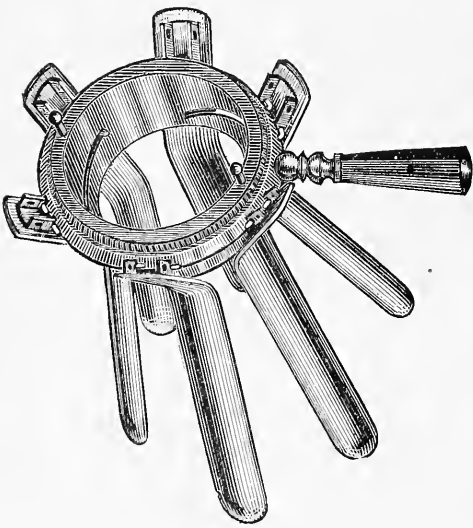
FIG.			
*3653	Universal Vaginal Speculum.	\$ 7 50
*3654	Leonard's " "	5 00
*3655	Jenks' " "	.....	6 00
3656	Reed's " "	.....	5 00
3657	Meadow's " "	9 00
3658	Byford's " " four blades.	10 00



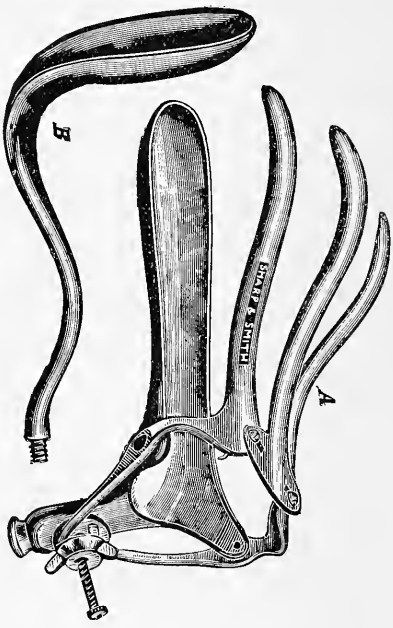
3653—Closed.



3654



3653—Open.

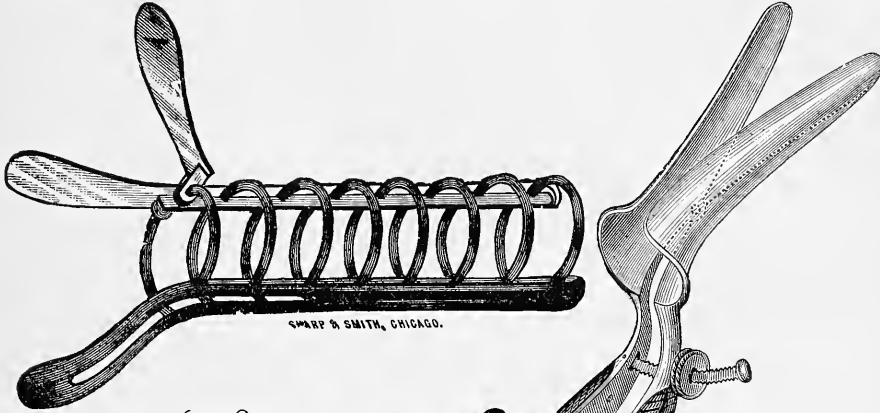


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All Instruments designated by a * are illustrated.

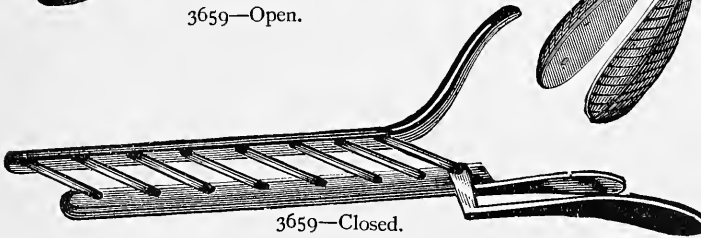
GYNÆCOLOGICAL—SPECULA.

FIG.			
*3659	Shiland's Vaginal Speculum.....	\$	3 75
*3660	Siemon's (set) Vaginal Speculum, with two handles and eight blades	15	00
3661	“ “ “ “ “ “ four “	9	00
*3662	Schlotterbeck's “ “	7	50
*3663	Thomas, latest “ “	15	00
*3664	Ricord's Bivalve “ “	3	00

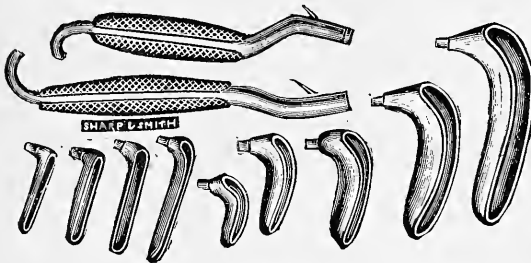


3659—Open.

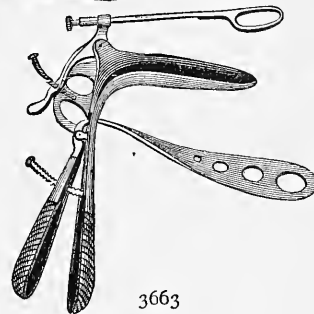
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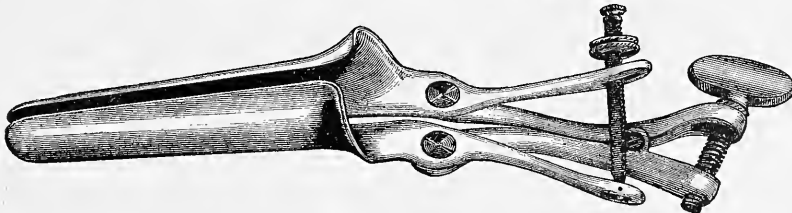
3659—Closed.



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3662

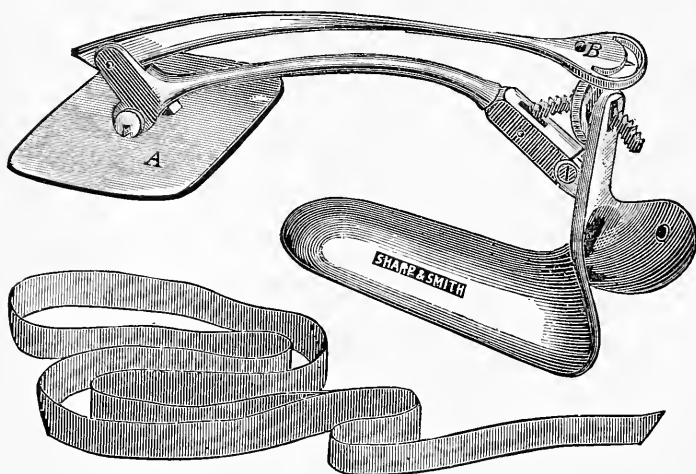


Pat., Feb. 24, 1874.

3662

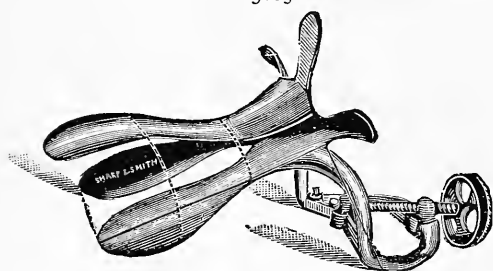
GYNÆCOLOGICAL—SPECULA.

FIG.		
*3665	Erich's Vaginal Speculum.....	\$ 7 50
3666	" " modified by Hunter.....	12 00
*3667	Bozeman's Trivalve Speculum.....	9 50
3668	" Duck Bill ".....	2 00
*3669	Neugebauer's Vaginal Specula, set of 4 pieces, making 3 sizes of Sims' Specula	4 50
3670	" " with screw attachment for making into form of Sims'.....	5 00
*3671	Neugebauer's Vaginal Specula, modified by Barnes.....	2 00
*3672	Bath.....	1 50

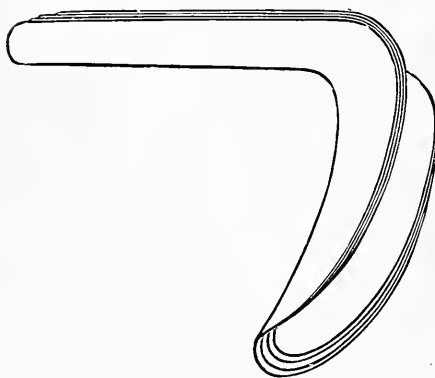


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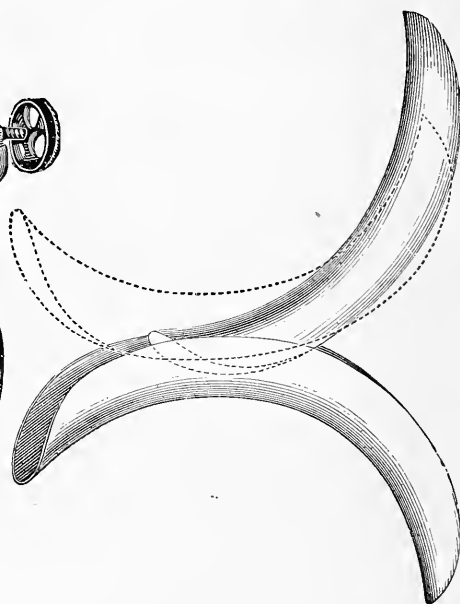
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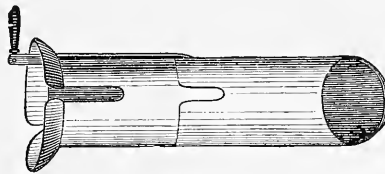


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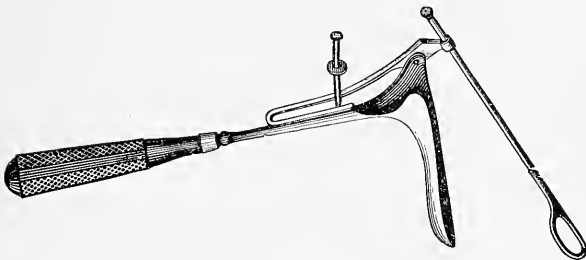
GYNÆCOLOGICAL—SPECULA.

FIG.					
3673	Wackerhagen's Vaginal Speculum.....	\$	8	00	
*3674	T. & Co.'s Four Blade Vaginal Speculum.....		7	50	
*3675	Thomas' " "		7	50	
*3676	" Telescopic " "		3	75	
*3677	Ferguson's Glass Mirror " "			35	
3678	" " Plain "			30	
3679	" " Round End "			55	
3680	" " Fenestrated "			55	
3681	" " Opaque "			50	
3682	" Metal Lined "	I	50		
*3683	" Hard Rubber "	I	00		
*3684	Dr. Jno. Blake White's Modification of Sims' Speculum.....	I	85		
*3685	" " " " " Nott's "	3	75		

See following page for description of Figures 3684 and 3685.



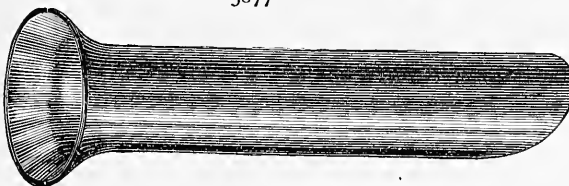
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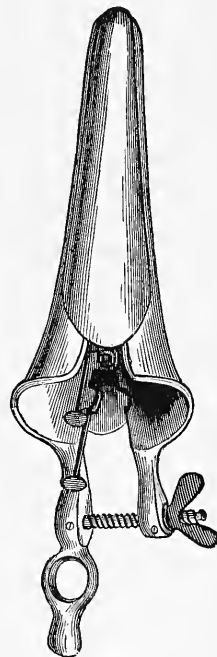
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SHARP & SMITH, CHICAGO.



3677



3674

All Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—SPECULA.

BY JOHN BLAKE WHITE, M. D.,

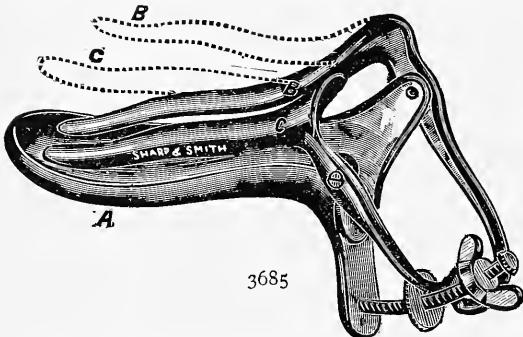
Visiting Physician to Charity Hospital, Blackwell's Island, N. Y.

The speculum we use to-day is a composite instrument, the result of successive improvement at the hands of experts.

Although important features about it have from time to time been added, not one alone of these instruments can be relied upon to the exclusion of the rest. There is, therefore, latitude yet open for the exercise of invention to those who are in the habit of employing the various forms of this essential auxiliary to diagnosis and treatment of uterine diseases.

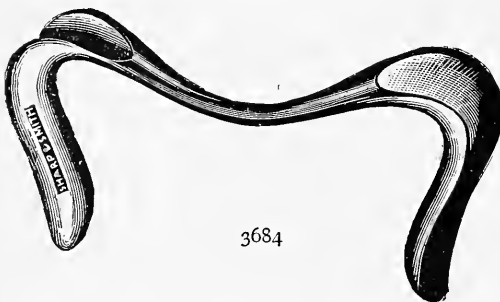
Its success in my own hands, and that of a few of my professional friends, for the past three years, in facility of introduction, in readiness of adaptability and perfect command of the parts to be examined and treated, has been so satisfactorily demonstrated that I have esteemed it a duty I owed to the profession to place it at the option also of those from whom I have, at various times, received similar favors.

The lower blade *A* is so constructed that when introduced it follows the posterior vaginal wall, which, owing to the concavity of the sacrum, is curved, and the cup-shaped extremity rests directly behind the cervix uteri.



If the uterus is displaced, the curved end of the speculum will assist in bringing the cervix into view. By its aid the vagina is more easily distended posteriorly and inferiorly. The two upper blades, *B* and *C*, are concavo-convex, so that full dilatation may be effected superiorly at points where least resistance is offered by the anatomy of the region.

The part of the pelvis through which the vagina courses and admits a speculum, contains no organ or tissues that can possibly suffer by considerable distension of the vagina. This fact is well shown by the act of parturition.



The Sims speculum is rendered far more useful, constructed in accordance with this natural vaginal curve posteriorly.

The cylindrical specula are also more useful when made to conform more fully to this posterior vaginal curve. The improved Nott's speculum has another advantage in that the two upper blades, *B* and *C*, are arranged to admit of independent action, enabling the operator to lift one or the other lateral half of the vagina. This mechanism facilitates the search for the cervix uteri, especially in displacements.

The introduction of the uterine sound, as well as tents, is rendered more practicable when this curved speculum is used, and local treatment of the endometrium can be far more thoroughly and satisfactorily accomplished.

When this instrument is closed for withdrawal, the folds of the vaginal mucous membrane are less apt to be pinched than with the other trivalve specula. A smaller sized instrument than the one presented should be used in nulliparous vaginae.

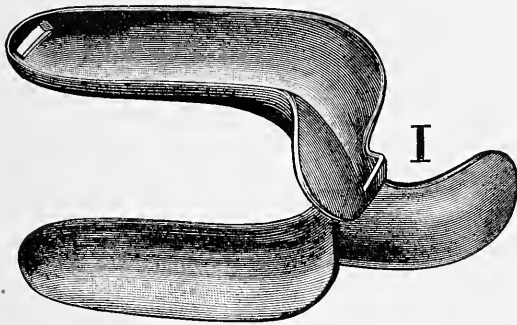
GYNÆCOLOGICAL—SPECULA.

FIG.	Cleveland's Vaginal Speculum, Fig. 1	.....	} \$2 50
*3686	" " " " " 3	.....
*3686A	" " " " " 2	.....
*3686B	" Speculum Belt " "	.....

A SELF-RETAINING SPECULUM.

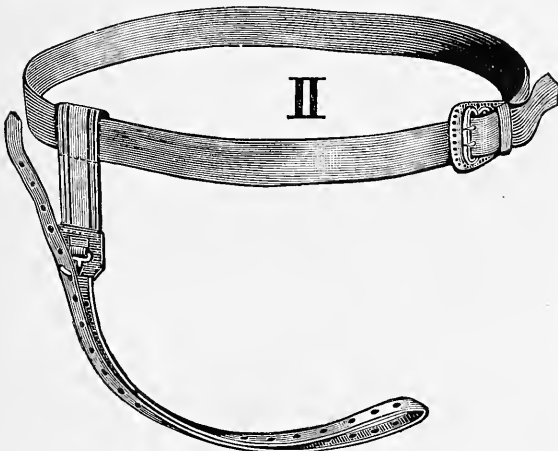
BY CLEMENT CLEVELAND, M. D., New York.

This instrument is designed as a so-called self-retaining speculum. It consists of two Sims blades, each with a flange, and separated by an interval of one inch and three-fourths (Fig. 1). These, though in parallel planes, looking at them from the side, will be seen to be at a slight angle to each other when held with the concavity of either toward the observer, the nearer blade deflected to the right, and the farther one to the left. The object of this will be explained further on.



3686

At the point of each blade is a fenestra, and at the bend of the instrument, where the two blades come together, is a narrow metal band. To complete the instrument, there is a belt of webbed material to be applied about the waist. On this is looped, to admit of its being moved readily to any position upon the belt, a piece of the same material. To this is attached a long leather strap, with oblong perforations placed at intervals of half an inch. At the point where this strap and the piece of belting are joined there is a hook, the purpose of which will appear later. (See Fig. 2).



3686 A

To apply the instrument, the belt is first buckled by the patient, not tightly, about her waist and outside of her clothing, with the attached strap behind and the hook turned outward. She is then placed in the Sims position. The operator selects the blade he thinks better suited to the case, and, holding the instrument with the right hand, with the left he passes the leather strap through the fenestra at the point of the other blade, and then under the metal band, leaving the strap quite loose between them. Then holding the

speculum still with the right hand, with the index finger extended along the concavity of the blade, it is introduced, care being taken to pass it back of the cervix. The instrument is then pushed firmly up against the perineum, the outer blade reaching a point just at the bend of the coccyx. I would say here, in parentheses, that I have tried the instrument in over fifty women in my clinic

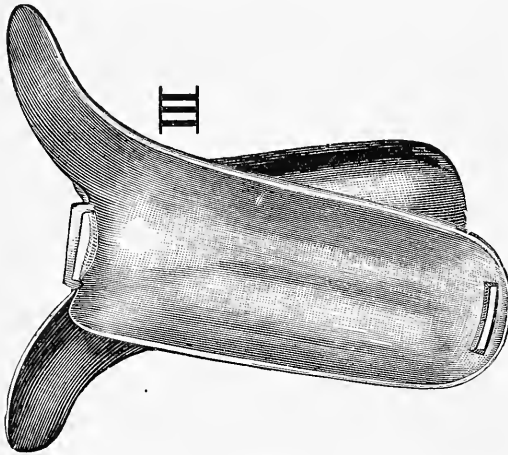
GYNÆCOLOGICAL—SPECULA.

at the Woman's Hospital, and find that the interval of one inch and three-fourths between the blades is enough, even in the stoutest women, to include all tissue between the posterior wall of the vagina and the integument between the nates. In very thin women it will even be found advisable to place a folded towel under the external blade. The next step is to draw the leather strap tight, first through the fenestra and then under the metal band. The perineum is then retracted to the required degree by drawing the strap backward and securing it to the hook provided for the purpose, as here described. By now using the vaginal depressor the cervix is brought at once into view.

When the belt is applied outside the dress it may be necessary to pass the strap through the fenestra at the end of the blade. In many cases the clothing, pushed back from the buttocks, is bunched up so high that it is necessary to have the tension exerted from the two points. If the tension were from the metal band alone the speculum would be more likely to pull out. When the belt is applied merely over the nightdress, as in an operation, then it may be only necessary to pass the strap under the metal band, for then the tension is

directly backward, and the speculum cannot possibly pull out, as the strap presses firmly over the point of the blade. Still I should advise it always being passed through the fenestra. This I will explain below. To remove the speculum, detach the leather strap from the hook. The oblong perforations enable the operator to pull the strap off with the greatest ease. Then the speculum is withdrawn from the vagina and off of the strap at the same time.

I should here explain why the blades are placed at an angle to each other, as above described. The chief fault to be found with all self-retaining specula is that,



3686 B

to see at all satisfactorily, one has to stoop; while with the Sims speculum, held by a nurse, we look directly down upon the cervix as we sit before the patient. This is because the nurse does not pull directly backward upon the perineum, but a little upward, thereby tilting the point of the blade a little downward. This is precisely what is accomplished by giving the aforesaid angle to the blades in this new speculum, the strap pulling the outer blade directly backward, thus tilting the other just enough downward. (See Fig. 3.) If the strap is not passed through the fenestra there is danger that the point of the blade under the strap may slip upward, and especially so in thin women, thus deranging the position of the blade in the vagina.

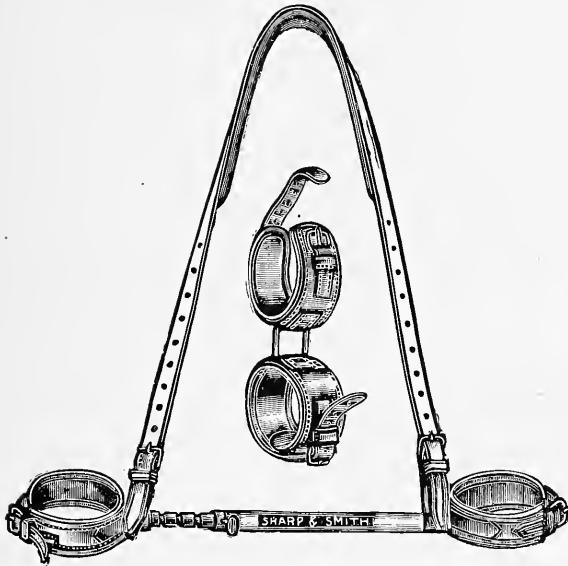
The instrument seems to possess several advantages which it may be well to mention. In the first place, it consists of two blades of different size. It is simple, having no mechanism about it to get out of order. It can be easily kept clean, being entirely of metal, and in one piece.

It is not claimed that it can take the place of a well-trained nurse, but it certainly does better than an indifferent one. It has been used in several cervix operations at the Woman's Hospital, with entire satisfaction to the operator.

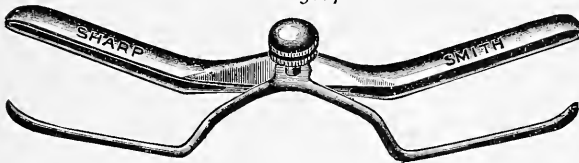
GYNÆCOLOGICAL—URETHRAL.

FIG.

*3687	Clover's Perineal Crutch.....	\$ 9 00
*3688	Elliott's Cervical Speculum.....	4 75
3689	Wire Douche.....	1 50
*3690	Peaslee's Tube and Stem for Intra Uterine Medication.....	2 75
*3691	Skene's Urethral Speculum	2 25
3692	Folsom's	1 20
*3693	Sharp & Smith's Urethral Speculum.....	1 50
*3694	Jackson's Mirror.....	85
*3695	Barnes' Pledget Speculum.....	2 40



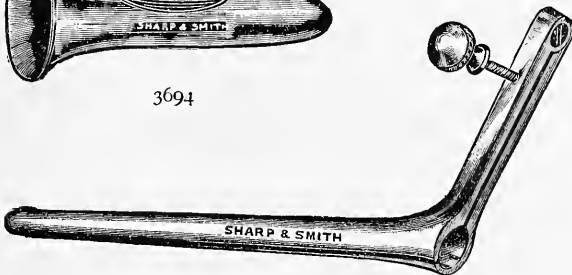
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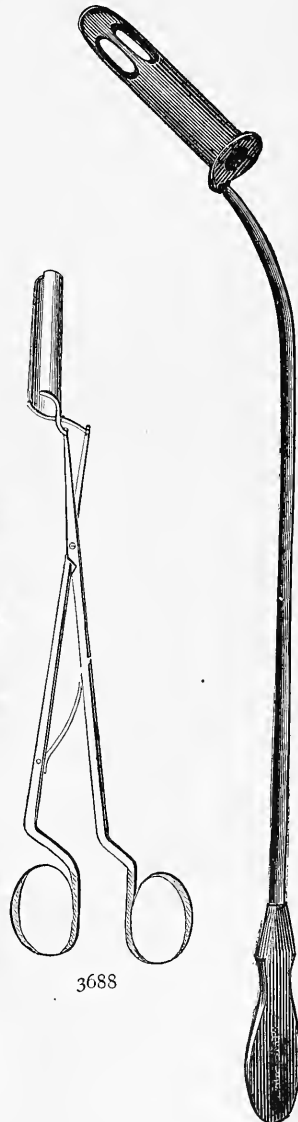
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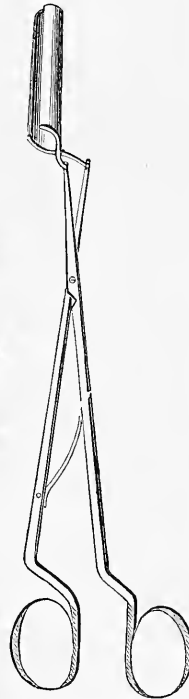
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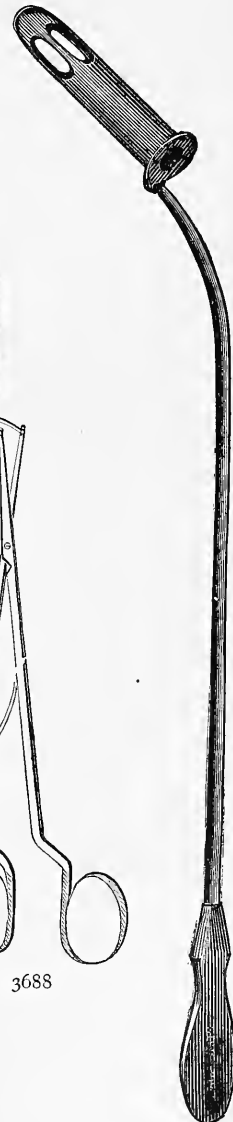
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3690



3688



GYNÆCOLOGICAL—URETHRAL.

FIG.			
*3695	Brown's Urethral Speculum.....	\$	3 35
*3697	Jackson's Vaginal Retractor.....	each	1 50
3698	Sims' " "	"	2 50
3699	Porter's " "	"	2 50
3700	Feig's " "		7 00
*3701	Beatty's " "		1 85
*3702	Wire Labia "		2 40

A NEW URETHRAL SPECULUM.

This cut shows an instrument first made two or three years ago. At times it is serviceable when those of other designs are not. The fault with many instruments intended for this purpose, is the pain caused by tension of the meatus, especially when this part, as is often the case, is tighter than the parts within. Again, the unsupported tips of a speculum converge, giving a funnel-shaped opening, into which it is difficult to secure a satisfactory view. These two annoyances increase proportionately with the spread of the speculum, by reason of the increased resistance, whether at tip or base, being conveyed to

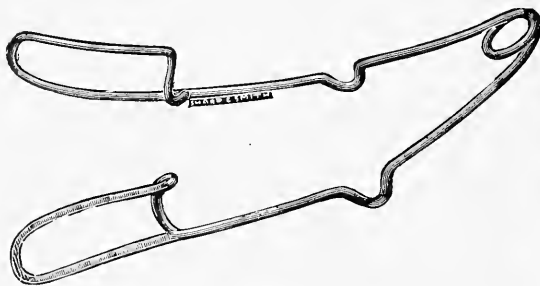


3690

This drawing represents the tips well opened; the base moderately so.

the most yielding part of the arms of the speculum, namely, their free extremities; the increased resistance adding at the same time to the pain.

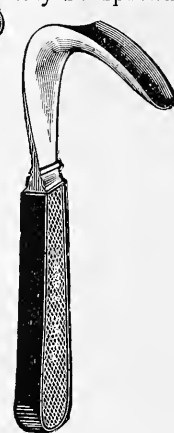
To obviate these difficulties, a lever is placed similar to that in Dr. Brown's metro-urethrotome, at the distal end of the speculum, its contact with mucous surfaces being prevented by side plates. This lever is controlled by the screws with *B*, running on a thread and bearing against the head of one pair of lateral rods. The spreading of the proximal parts of the speculum is effected as usual, by a screw, *A*, at the base. By this means the tips and base of the instrument are independently controlled, consequently the arms may be spread so as to be parallel or to converge at either extremity. In this way any part of the urethra, to the depth of four inches (the length of the arms) can be distended at will.



3702



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3701

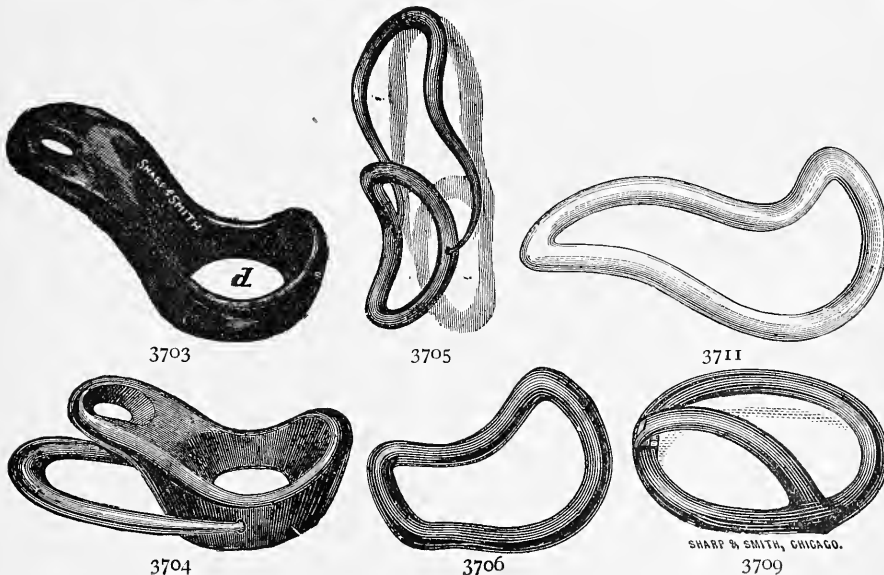
GYNÆCOLOGICAL—PESSARIES.

For the Mechanical Treatment of Prolapsus Uteri, Versions and Flexions.

Much has been written by physicians on the subject of uterine displacements, and very opposite views have been entertained of the proper treatment. Some advocate the use of pessaries, while others condemn them. But we do not see why pessaries should be wholly condemned because they have been used injudiciously. Physicians must acknowledge that great benefits have been derived from the application of the principles of mechanics to the treatment of uterine displacements. Ever since the days of Hippocrates, pessaries of various forms have been used for supporting and elevating the uterus. The first pessary that we read of was a small pomegranate, pierced through the core and placed by Hippocrates in the vagina for the purpose of supporting the womb. This has been imitated by French surgeons, who used for the same purpose unripe oranges and lemons. We keep on hand and manufacture to order every variety of pessary for uterine displacements. At present there seems to be no settled plan of treatment. While one surgeon prefers a ring pessary, another prefers the stem, another a cup, another a globe, another a disk, another an inflated, another an S, while others discard them *in toto*. We will not assert all the claims of each individual inventor, as each claims his to be superior to all others. We will illustrate the pessaries and leave the physicians to judge of the merit or demerit of each.

FIG.

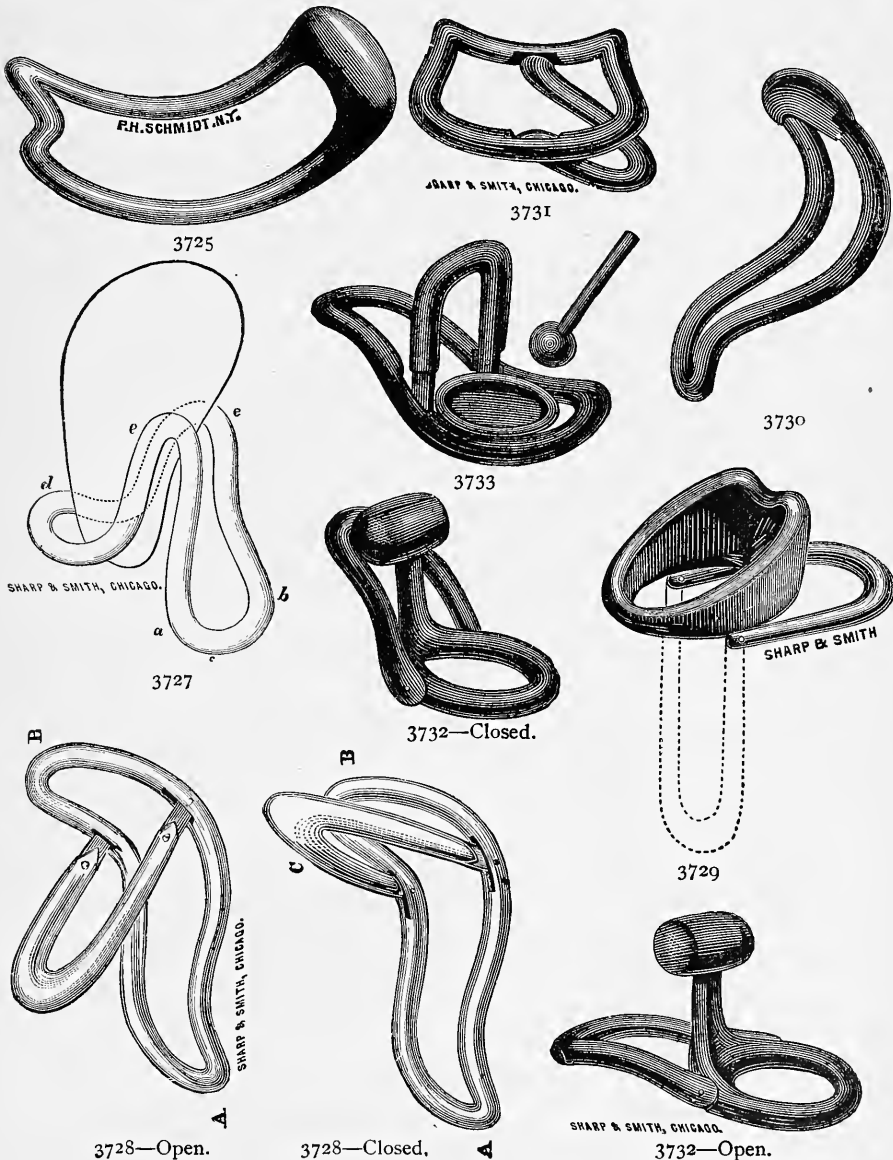
*3703	Fowler's Pessary, three sizes.....	each \$	1 25
*3704	" Bow Pessary.....	I	75
*3705	" Anti-Impaction Pessary.....	I	75
*3706	Hodge's closed ".....		25
3707	" open lever ".....		30
3708	" soft rubber ".....		75
*3709	Hitchcock's Anteversion ".....	I	00
3710	Sims' Metal ring ".....		35
*3711	Smith's ".....		25
3712	" soft rubber ".....		75



SHARP & SMITH, CHICAGO.

GYNÆCOLOGICAL—PESSARIES.

FIG.			
* 3725	Thomas' Modification of Noeggerath's Pessary.....	\$	1 00
3726	" " Smith's "		50
* 3727	" Retroversion Pessary.....	each	75
* 3728	" Anteversion " five patterns.....	each \$	0 75 to 1 20
* 3729	" " old style	each	75
* 3730	" Retroflexion "		75
* 3731	" Anteflexion "		1 00
* 3732	" "		1 50
* 3733	" Lateroflexion "		1 75
3734	" Cradle		85



GYNÆCOLOGICAL—PESSARIES.

FIG.					
*3735	Conant's Intra Uterine Stem Pessary	\$	I	75	
*3736	Dr. Wm. H. Wathen's Intra Uterine Stem Pessary.....	I	25		
*3737	Jackson's Elastic " " " "		35		
*3738	" " Hard Rubber " " " "		75		
*3739	Hard Rubber " " " "		55		
*3740	Peaslees' " " " "	I	00		
3741	Galvanic " " " "	I	00		
3742	Thomas' " " " "	I	10		

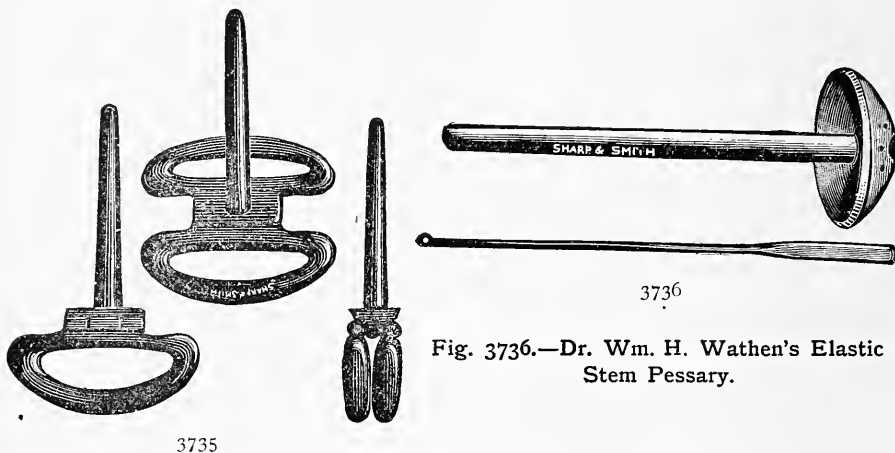
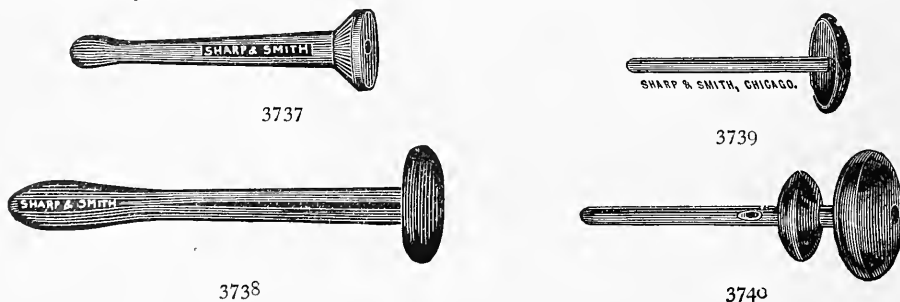


Fig. 3736.—Dr. Wm. H. Wathen's Elastic Stem Pessary.

In treating uterine flexures or curvatures unconnected with great stenosis, one has trouble with a rigid stem pessary, which causes irritation of the part. Elastic pressure being the proper mode of treating those, as well as flexures of other parts of the body, a Pessary, described by the accompanying cut, has been devised by Wm. H. Wathen, M. D., Louisville, Ky.

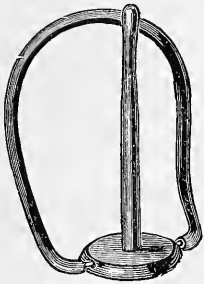
It is made of soft red rubber, of the same shape as an ordinary simple Stem Pessary, with a flange at the lower end fitting smoothly over the cervix, but perforated so as to allow free discharge of secretions. The stem is hollow, so as to allow the introduction of an elastic stilet of any desired strength the operator may wish, but great force is not necessary. The stilet can be made by any person, whittled out of whalebone or hard rubber, left hard enough at the outer end to tightly fill the stem, exclude the moisture, and retain it in place.

In ordinary cases, the stem can be introduced with the stilet in position, but, when the parts are intolerant, the rubber alone can be worn until a tolerance is established, after which the spring is easily slipped in without the least danger of lacerating or irritating the over-sensitive endometrium. Under elastic pressure applied in this way, curvatures soon disappear. Other Pessaries for retaining the uterus in position, can be worn at the same time without interfering with this one. When the uterus is in normal position, the vaginal walls exert pressure enough to keep the stem in position. When they do not, pledgets of antiseptic wool or cotton should be used. These stems should be made of two lengths and sizes, $2\frac{1}{4}$ and $2\frac{1}{2}$ inches long, and Nos. 6 and 10 in size. The size and length of the stilet can be made to make quite a difference in their size and length. The stilet in the above cut is pictured too long; it should be no longer than the cavity in the stem.

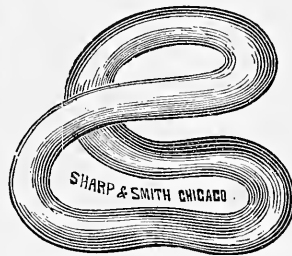


GYNÆCOLOGICAL—PESSARIES.

FIG.						
*3743	Curved Hard Rubber Intra Uterine Stem Pessary.....	\$	75			
3744	Chambers' " " " "		75			
*3745	" " " " with stem for introduction, per set. 2		75			
*3746	Sims' " " " "	1	50			
3747	Edwards' " " " "	2	25			
3748	Coxeter's " " " "		95			
3749	Ball's " " " "		95			
*3750	Munde's Ovarian Pessary.....	1	50			
*3751	Gehring's Anteversion "		50			
3752	" Retroflexion "	1	50			
3753	" Antiflexion "	1	50			
*3754	Graily Hewitt's "		75			
*3755	Hank's Galvanic "	1	10			



3746



3751



SHARP & SMITH, CHICAGO.



3743



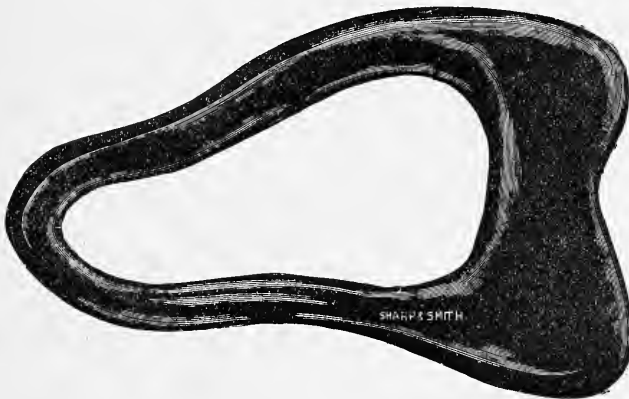
SHARP & SMITH, CHICAGO.

3754



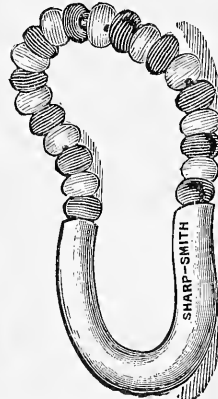
SHARP & SMITH, CHICAGO.

3745



SHARP & SMITH

3750

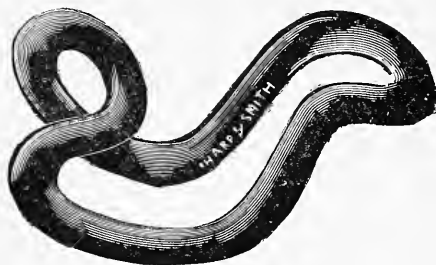


SHARP-SMITH

3755

PESSARIES.

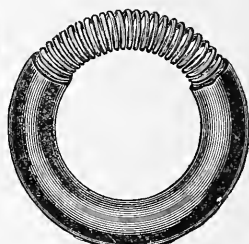
FIG.		
*3756	Dr. H. T. Byford's Retroversion Pessary.....	\$1 00
*3757	Trask's Rubber Dumb-Bell Pessary.....	60
*3758	" Cotton " " Pessary.....	45
*3759	Zwank's Pessary.....	1 50
*3760	Hurd's "	1 00
*3761	Buttles "	55
*3762	Hard Rubber Sleigh Pessary.....	1 10
*3763	Kinloch's Anteversion Pessary.....	1 25
*3764	Hoffman's Anatomical "	\$1 50 to 3 00
*3765	Meigs' Gutta-Percha Ring Pessary.....	25 *



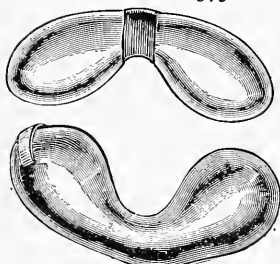
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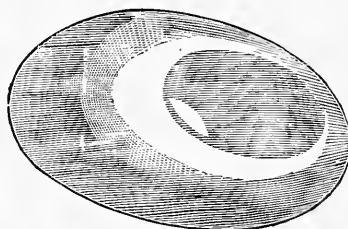
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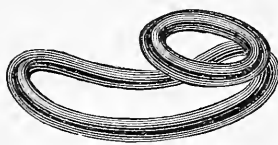
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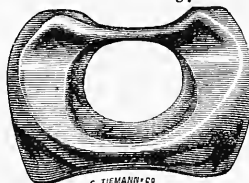
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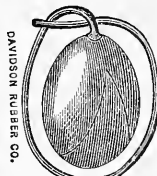
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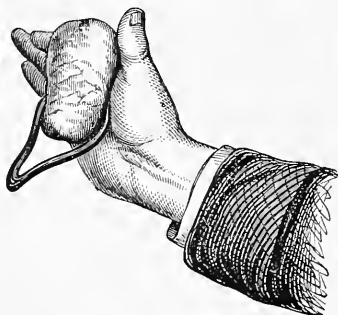
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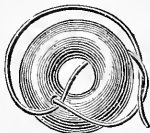
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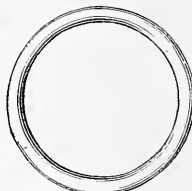
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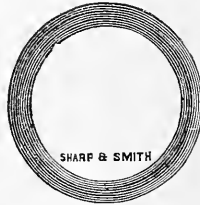
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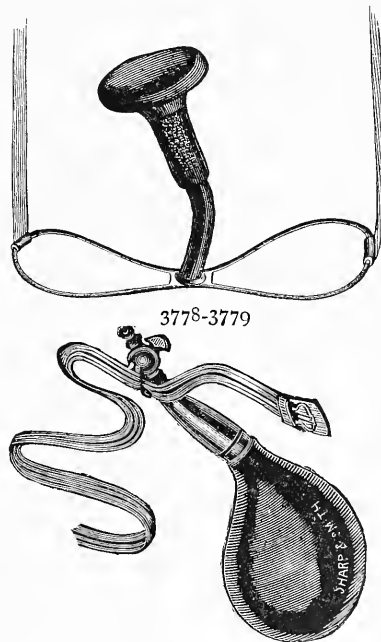
3772 3773



3766 to 3770

GYNÆCOLOGICAL—PESSARIES.

FIG.						
*3766	Peaslee's Ring Pessary	\$	35		
*3767	Block Tin " "	.....		35		
*3768	Copper Wire Ring Pessary, rubber covered	.....		35		
*3769	Spiral " " " " " "	.....		35		
*3770	Watch Spring " " " " " "	.....		35		
*3771	Hard Rubber " " " " " "	.....		35		
*3772	Inflated " " " " " "	.....		30		
*3773	" " " " " " pure gum	.....		50		
*3773-A	" " " " " " German	.....		75		
*3774	Inflating Stem Pessary	.....		30		
*3775	" " " " " " pure gum	.....		50		
*3776	" " " " " " pear shape	.....		30		
*3777	" " " " " " pure gum	.....		50		
*3778	Hornby's Pessary, with belt, plated	.....	2	25		
*3779	" " " " " " silver	.....	4	00		
*3780	O'Leary's " " " " " " plated	.....	2	25		
*3781	" " " " " " " "	.....	4	50		
*3782	Braun's Colpeurynter with Stop Cock	.....	1	50		
3783	Woodward's New Pessary	.....	1	10		
3784	Glass Concave " " " " " "	.....		25		
3785	Hard Rubber Concave Pessary	.....		25		
3786	Glass Globe " " " " " "	.....		25		
3787	Hard Rubber Globe " " " " " "	.....	1	00		
3788	Noeggerath's " " " " " "	.....		60		
3789	Chamberlain's " " " " " "	.....	1	00		
3790	Beebe's " " " " " "	.....		50		
3791	Wilson's " " " " " "	.....	6	00		
3792	Higbee's " " " " " "	.....		60		



3782—Braun's Colpeurynter.

GYNÆCOLOGICAL—PESSARIES.

Fig. 3794. Bozeman's Vaginal Pessary.....\$ 1 60

(Extract from "Retroversion in Relation to Lacerations of the Cervix Uteri.")

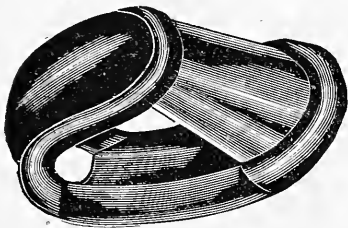
BOZEMAN'S VAGINAL SUPPORT.

By NATHAN BOZEMAN, M.D., New York.

* * * I have labored long to devise a suitable vaginal support to take the place of the column of carbolyzed cotton, but it is only within the last year that I have succeeded in bringing the instrument to a degree of perfection which enables me to predict its ultimate success.

This instrument is constructed upon the principle of the parallelogram.

It is elastic, and thoroughly self-sustaining. This instrument is made of steel wires. It has vesical and rectal branches which are covered with thin rubber up to points near the heel of the instrument, where an opening is left for the escape of the menstrual and other discharges.



3794-

Upon the vesical branch is set a cushion which is to receive and support the vesico-vaginal septum. The covering of the rectal branch is distended with air in order that it may adapt itself uniformly to the recto-vaginal septum. The two upper uneven points are united by a broad elastic apron which, like a chair, is to receive the cervix uteri, and to a certain extent support the weight of the entire organ. When viewed edgewise the instrument presents somewhat the appearance of a jockey's cap, and a medical friend suggested that it should be called the "jockey cap" pessary. However, to avoid the name of a uterine pessary, I prefer to call it a *vaginal support*. This name is in strict accord with the action of the instrument, for it leaves the uterus and its relaxed ligaments to take care of themselves in their normal relation and position. This is an attainment of the highest aim I can conceive for any form of instrument employed for the latter purpose.

This instrument is not only useful for maintaining the uterus in an elevated position after retroversion and prolapsus have occurred, but it is also a most valuable instrument with which to accomplish the same end after the retroflexed and fixed uterus has been dislodged from the hollow of the sacrum by means of the cotton columns or compresses already described.

After proper preparatory treatment by means of the cotton columns directed obliquely against the vesico-vaginal septum from the perineum or *point d'appui*, the instrument can be used with equally satisfactory results in cases of antelexion and anteversion of the uterus.

I have numerous illustrations which show in what direction the several forces alluded to operate, both with reference to the oblique cotton columns employed in the preparatory treatment, and the vaginal support used in the curative treatment, but time and space do not permit their description and introduction into the present paper.

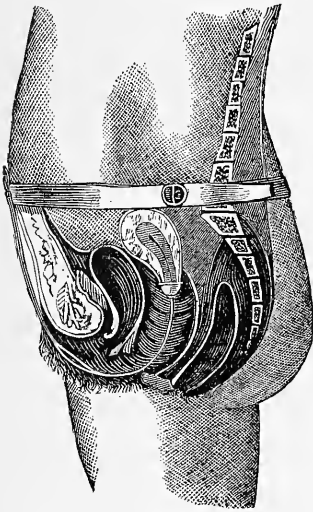
Suffice it to say that retroflexion and fixation of the uterus in the hollow of the sacrum constitute, both in the primiparæ and in the multiparæ, the largest class of uterine displacements, and often the most deplorable, which we are called upon to treat. Hitherto, treatment of these cases by means of the uterine sound and stem pessary has been unsatisfactory, and, according to my experience, a more comfortable, safe and effective method is unquestionably a great desideratum. The plan of treatment which I have described is nothing more nor less than an application of some of the principles of orthopedic surgery to uterine distortions, and I think, will accomplish the end desired. * *

PESSARIES OF ALL KINDS MADE TO ORDER.

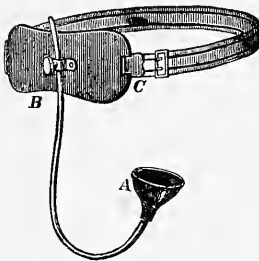
GYNÆCOLOGICAL—UTERINE DILATORS.

FIG.

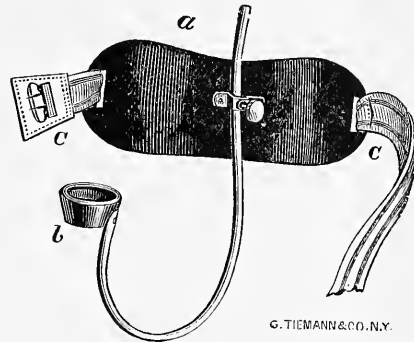
*3793	Improved Uterine Supporter, with cup and belt.....	\$ 2 25
3794	McIntosh's " " " " "	5 00
*3795	T. & Co.'s " "	4 50
3796	Farr's No. 1 " "	5 00
3797	" No. 2 " "	4 00
*3798	James' " "	3 25
*3799	Babcock's Silver Uterine Supporter.....	10 00
3800	Lutz's " "	4 00
3801	Shannon's Elastic " "	5 00
*3802	" Silver " "	8 00
3803	Wadsworth's " "	5 00



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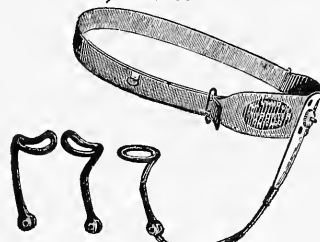


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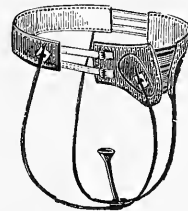


G. TIEMANN & CO. N.Y.

3795



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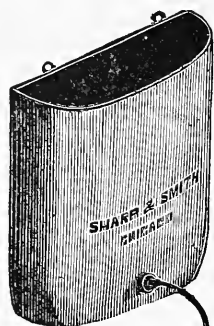


3793

All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—DOUCHES.

FIG.		
3804	Frazer's Vaginal Douche.....	\$ 2 75
3805	Frost's " "	2 25
3806	H. Webster Jones' Bed Pan and Douche, complete.....	5 00
*3807	" " " only.....	4 00
*3808	" " Douche "	1 00
3809	Emmet's Rubber Bed Pan.....	3 75
For other Bed Pans see index.		

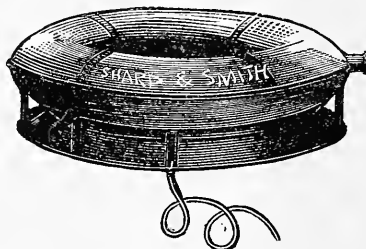


Reservoir Capacity, One
Gallon.

"A"—Stop-Cock.

"B"—Hard Rubber
Vaginal Pipe.

DR. H. WEBSTER JONES'
Self-Discharging Bed-Pan
Or UTERINE DOUCHE



3808

3807

This apparatus facilitates the use of Dr. Emmet's plan of Vaginal and Uterine Irrigation, which has done more to restore and to promote health in the pelvic organs than any other device of modern gynæcology.

For the benefit of the uninformed, we state the essentials of success:

1st. The patient must be recumbent during the administration of the douche, and remain so as long as possible thereafter. It is better, therefore, to take it after retiring for the night, and if in the morning, to lie at least an hour afterward in a horizontal position.

2d. The water must be at a temperature of 105° Fahrenheit, and may be gradually increased, day by day, until 120° is reached.

3d. A gallon should be used each time, and about twenty minutes be consumed in its outflow.

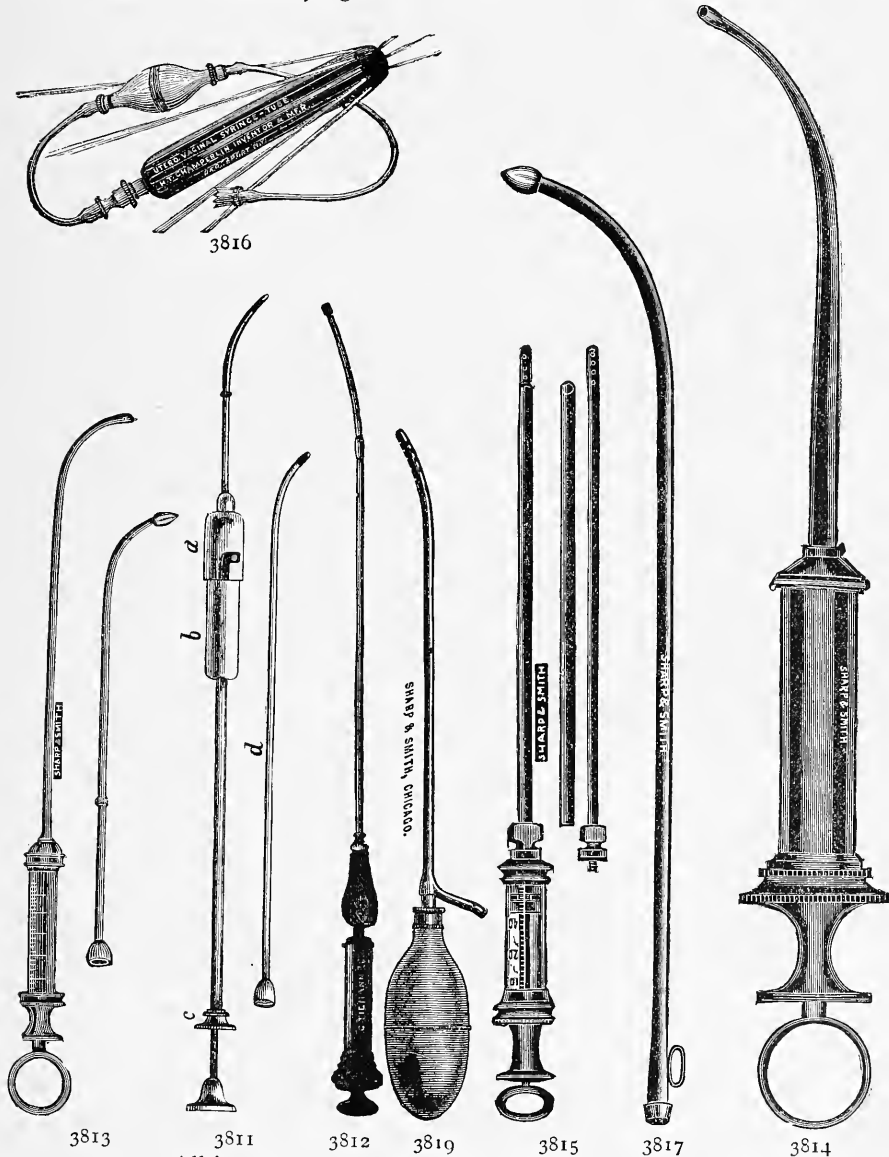
4th. If a fountain syringe be used, or other similar instrument, it should not hang higher than eighteen inches above the patient's body. This secures moderate force to the current.

5th. The syringe-point should be directed (after entrance) well to either side, so that the current may flow *around*, not *against* the uterine neck.

6th. The douche thus employed, will unaided, cure many a case of leucorrhœa, painful or excessive menstruation, inflammation of the uterus or ovaris cellulitis, excessive sensitiveness of the organs, irritable bladder and rectum, etc., etc. When used as an adjuvant to other treatment, it will greatly hasten convalescence, and contribute to permanence of health, if persevered in after cure.

GYNÆCOLOGICAL—SYRINGES.

FIG.			
3810	Hard Rubber Uterine Syringe, long stem.....	\$	85
*3811	Lente's Uterine Syringe.....	3	00
*3812	" " ".....	3	35
*3813	Bumstead's Uterine Syringe ..	1	85
*3814	Burr's Hard Rubber Uterine Syringe (Ointment).....	1	00
*3815	Spicker's Double Tube "	2	50
*3816	Chamberlain's Utero Vaginal "	1	75
*3817	Barthallow's Regurgitating Tube	1	00
*3819	Molesworth's Uterine Syringe.....	4	50

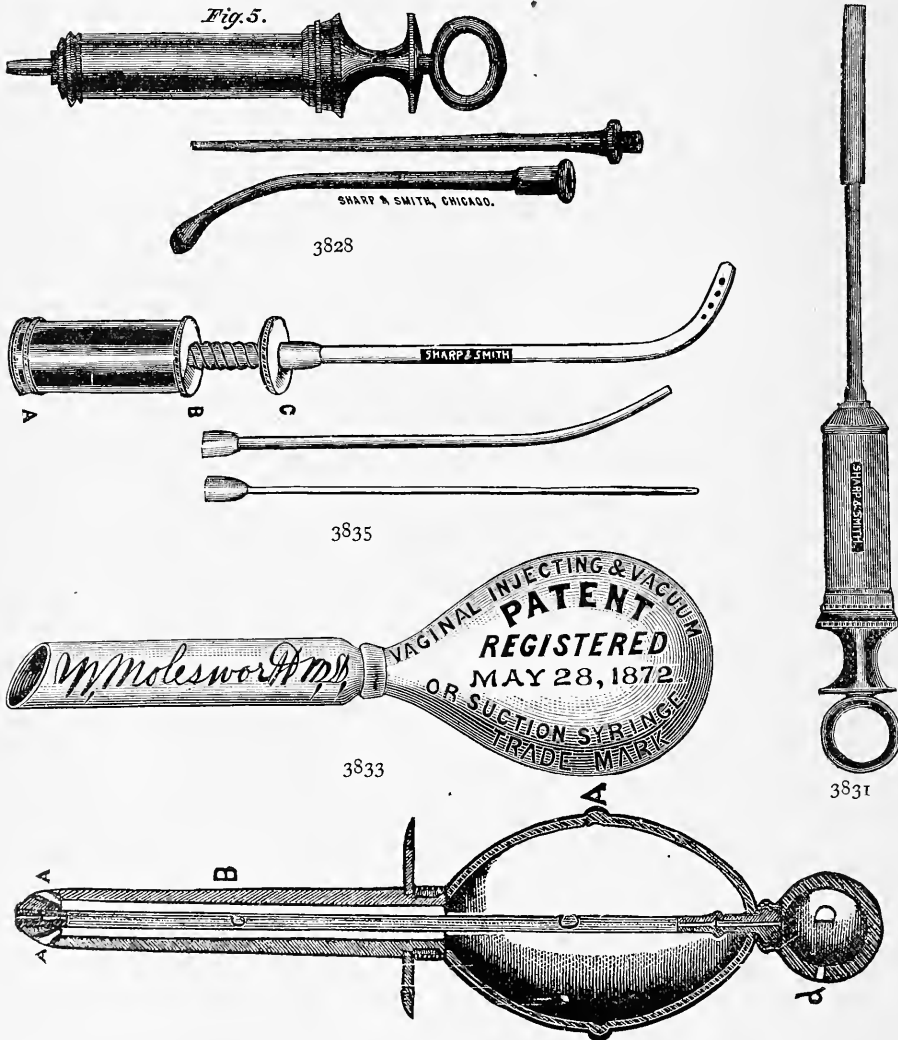


All instruments designated by a * are illustrated.

GYNÆCOLOGICAL—SYRINGES.

FIG.			%
3820	Braun's Uterine Syringe		1 50
3821	Taylor's " "		2 25
3822	Rubber Bag " "		2 50
3823	Barker's " "		1 10
*3824	Nott's " "		2 00
3825	Buttles' " "		2 00
3826	Essex' " "		1 10
3827	Sims' " "		1 50
3828	Sharp & Smith's Universal H. R. Syringe		2 75
3829	Universal H. R. Syringe.....		4 50
3830	Saltz's Uterine Syringe and Sound		3 40
*3831	Thomas' Syringe for Cervical Mucus		1 50
*3832	Woodward's Vaginal Syringe.....		3 00
*3833	Molesworth's " "		1 25

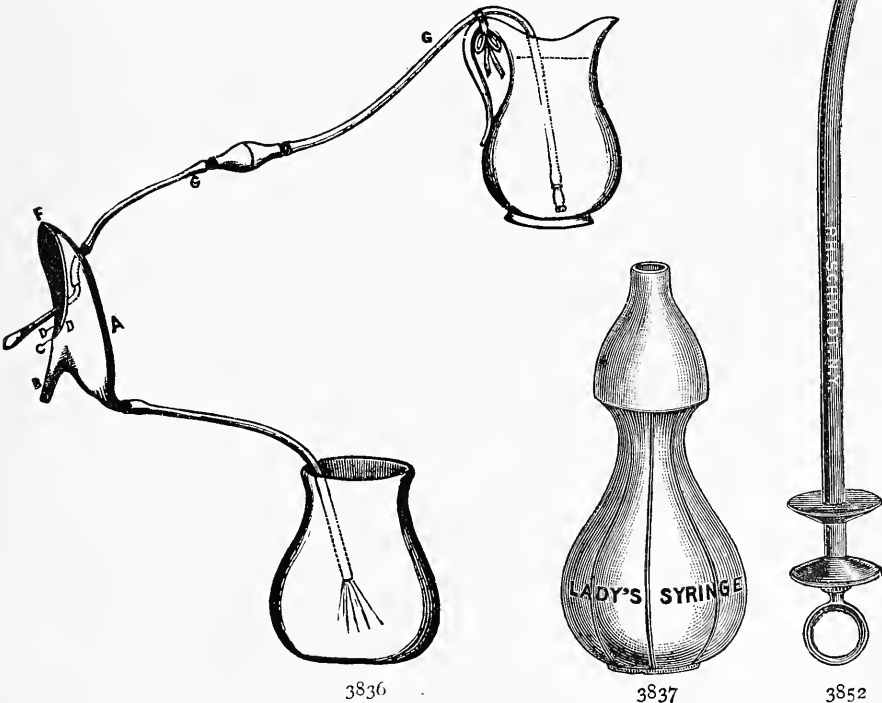
Fig. 5.



3822
All Instruments designated by a * are illustrated.

GYNÆCOLOGICAL—SYRINGES.

FIG.		
3834	Hutchinson's Ointment Syringe.....	\$3 00
*3835	" " " 3 pipes.....	4 50
*3836	Tucker's Indispensable Cup Syringe.....	3 00
*3837	Lady's Bag Syringe.....	2 50
*3838	Stiles' Vaginal Syringe Tube.....	1 00
*3839	Keyes' Hard Rubber Syringe, Stop Cock.....	1 50
*3840	" Metal " ".....	1 75
3841	Small Brass " ".....	50
3842	Large " ".....	75
3843	Small Hard Rubber " ".....	50
3844	Large " ".....	1 00
*3845	Silk Web Vaginal Tube.....	1 00
3846	Cutter's Vaginometer.....	5 00
3847	Hard Rubber Ointment Syringe.....	1 50
3848	Sharp & Smith's Syphon Vaginal Syringe.....	1 75
3849	Parker's Caustic Syringe.....	2 65
3850	Dick's " ".....	2 75
3851	Munde's Applying Syringe.....	1 60
*3852	Buttles' Suppositor, Hard Rubber.....	60
3853	Hard Rubber Vaginal Tubes.....each.	25
3854	" " " " with Stop Cock.....	75
3856	Glass " ".....each.	10
3857	Mattson's Vaginal Irrigator.....\$	80
3858	Spiral " ".....	1 25
3859	Lutz's " ".....	4 00
3860	Long's Uterine ".....	7 50



GYNÆCOLOGICAL—SYRINGES.

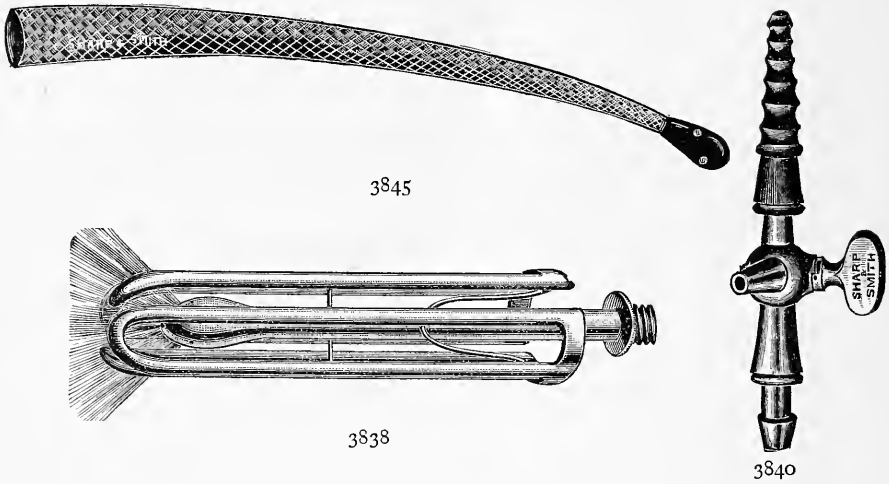
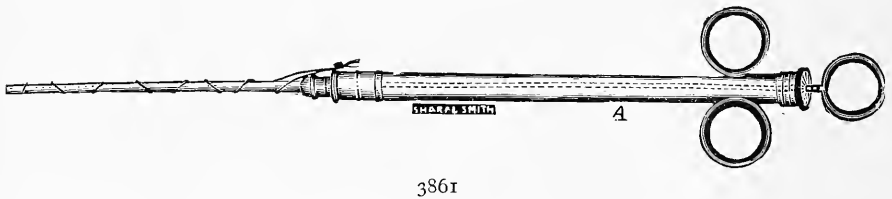


FIG.
3861 Kelly's Silver Applying Syringe.....\$4 50

An Improved Method of Making Applications to the Uterine Mucous Membrane.

By J. D. KELLY, A. M., M. D., Utica, N. Y.



The instrument is, in general terms, a syringe and probe combined, and consists essentially of two parts; the syringe barrel and the probe point. The barrel *A* is made of sterling silver. It is six inches in length, and one-fourth of an inch in diameter. The point *B* is made of virgin silver and is four inches in length, and one-sixteenth of an inch in diameter. It is attached to the barrel by means of a screw-cut cap at *b*, which fastens down closely upon the leather-covered shoulder at *a*. It is made of virgin silver, in order to better resist the action of acids and caustics, and also to secure the flexibility required to adapt it to the varying directions of the uterine cavity. The distal end of the point is perforated by a number of fine pin-holes, for the escape of medicaments upon operating the syringe. At one side of the shoulder *a* is a pin to which is attached a piece of fine silver wire suture or fine surgeon's silk.

GYNÆCOLOGICAL—SYRINGES.

The method of using the instrument is as follows: The point *B* is screwed upon the barrel *A*, and, the direction of the uterine canal having been learned, the point is bent to the proper curvature. With the piston depressed the point is inserted in the liquid medicament, and a quantity drawn up into the barrel by withdrawing the piston. A bit of cotton is then wrapped loosely about the tip of the point covering the perforated extremity and held in place by a few turns of the silver wire or silk thread, which is then brought back and its extremity fastened at *a*. The instrument is then introduced through a speculum and the probe point passed through the os tinæ into the uterine cavity. When the cotton covered point is upon the part to be treated, the piston is depressed, thereby forcing the medicament through the pin holes, saturating the cotton, and therefore, placing it directly in contact with the parts to be operated upon. During treatment it is well to place a pledget of cotton under the posterior lip of the os to take up any excess of the application that may escape into the vagina upon withdrawing the instrument. After use, the cotton is readily removed from the point upon unwinding the wire or silk thread, avoiding thereby all force in detaching it which would be likely to injure the flexible and hollow point. After cleaning, the point may be unscrewed and be bound to the side of the barrel by a few turns of the wire or thread, to protect its flexibility in carriage.

The advantage of this instrument consists in the facility and directness with which it does its work. It is introduced but once at a treatment, whereas the usual method with a probe or sound wrapped with cotton required passage through the neck of the canal several times, thereby causing damaging irritation. Moreover, the medicament is hereby delivered directly *in situ*, whereas, by the usual method, the operator is usually obliged to witness the medicament squeezed out of the cotton in its passage through the os and run down before his eyes into the vagina, while his cotton is pushed on quite dry into the cavity of the uterus, where it is directly coated over with secretions and wholly incapable of the designed effect.

FIG.

3862	Emmet's Gynæcological Case.....	\$64	00
3863	T. Gaillard Thomas' Gynæcological Case.....	30	00
3864	Dr. G. S. Winston's " "	40	50
3865	Buttles' " "	18	75
3866	U. S. Army " "	94	00
3867	A. Reeves Jackson's " "	40	00
3868	Byford's " "	50	00
3869	Bozeman's " "	70	00
3870	Sims' " "	35	00

GYNÆCOLOGICAL SETS.

Fig. 3862. Dr. T. A. Emmet's Set of Instruments for Vesico-Vaginal Fistula, contains:

- | | |
|-------------------------------|----------------------------|
| 1 Sims' Hospital Speculum. | 2 Bistouries. |
| 1 " Virgin " | 1 Scalpel. |
| 1 Emmet's Depressor. | 1 Emmet's Needle Forceps. |
| 4 " Sponge Holders. | 1 " Dressing " |
| 1 Sims' Catheter, soft metal. | 1 " Wire Twisting Forceps. |
| 1 Emmet's Uterotome. | 1 Sims' Blunt Hook. |
| 2 " Tenaculums. | 1 " Shield. |
| 1 Perry's Tenaculum. | 1 " Wire Carrier. |
| 6 Emmet's Scissors. | 1 Coil Silver Wire. |
| 1 " Wire Pressing Forceps. | 1 Dozen Emmet's Needles. |

Put up in a fine morocco pouch, lined with red chamois.

Fig. 3863. Dr. T. Gaillard Thomas' Uterine Case, contains :

- | | |
|--------------------------------|-----------------------|
| 1 Thomas Speculum. | 3 Whalebone Rods. |
| 1 Budd's Probe. | 1 Buttles' Scarifier. |
| 1 Sims' Sound. | 1 Long Pipe Syringe. |
| 1 Simpson's Sound. | 3 Bristle Brushes. |
| 1 Sims' Uterine Probe. | 1 Plain Curette. |
| 1 Sims' Tenaculum. | 2 Sponge Holders. |
| 1 Emmet's Dressing Forceps. | 3 1 oz. Bottles. |
| 1 Thomas' Sponge Tent forceps. | 1 Cotton Applicator. |

Put up in a wooden morocco covered case.

Fig. 3864. Dr. G. S. Winston's Uterine Case, contains :

- | | |
|--------------------------------------|------------------------------------|
| 1 Set of 3 Buttles' Glass Specula. | 1 Nott's Uterine Dilator. |
| 1 Gillette's Speculum. | 1 Pair Winston's Dressing Forceps. |
| 1 Hard Rubber Intra-uterine Syringe. | 1 " Sims' Scissors, curved up. |
| 1 Uterine Sound, 1 Silver Uterine | 1 Budd's Hard Rubber Applicator. |
| Caustic Probe, 1 Silver Uterine | 1 " " Probe. |
| Applicator, 1 G. S. Sponge | ½ Dozen Sponge Tents. |
| Holder, to fit into one handle. | 1 " Emmet's Needles. |
| 1 Buttles' Scarifier. | 1 Coil Silver Wire. |
| 1 Set Peaslee's Dilators. | 1 Emmet's Caustic Forceps. |

Arranged in a fine black calfskin case, satchel form, lined with red chamois.

Fig. 3868. Dr. Byford's Gynecological Case, contains:

- | | |
|---------------------------------------|--|
| 3 Higbee's Speculums, large, medium | 2 Curved Serresfins. |
| and small. | 1 Sims' Needle Holder. |
| 1 Sims' Speculum, with 1 broad blade. | 1 Plain Tissue Forcep. |
| 1 " Wire Adjuster. | 1 Emmet's Twisting Forcep. |
| 1 Emmet's Plain Silver Applicator, | 1 Byford's Medium Vulsellum Forceps. |
| without sheath. | 1 Uterine Knife. |
| 1 Byford's Blunt Hook. | 1 Sims' Probe. |
| 1 Sims' Sigmoid Catheter, Hard Rub- | 1 Hard Rubber Probe. |
| ber. | 1 Byford's Scissors. |
| 1 Byford's Curette. | 1 Fitch's Sound. |
| 1 Sims' Sharp Curette. | 3 Emmet's Sponge Holders. |
| 1 Jackson's Retractor. | 2 Sims' Tenaculums. |
| 1 Nelson's Uterine Dilator. | 12 Elm Tents, assorted, straight, curved |
| 1 Byford's Dressing Forcep. | and hollow. |
| 1 Straight Serresfin. | 12 Needles, assorted, for Uterine work. |

The small instruments in a neat roll up pouch, and all in a good quality instrument bag.

GYNÆCOLOGICAL SETS.**Fig. 3866. U. S. Army Gynæcological Set, contains:**

- | | |
|---|---|
| 1 Wallace's long Obstetric Forceps. | 1 Bottle, glass stoppered, and glass covered, for sulphate of iron. |
| 1 Brickel's Obstetric Forceps, for premature delivery. | 1 Do. do. Bottle for Ergot. |
| 1 Dr. T. G. Thomas' Perforator. | 1 Dr. Walter R. Gillette's Speculum. |
| 1 Braun's Cephalotribe. | 1 Simpson's Folding Sound. |
| 1 Budd's Blunt Hook and Crochet, guarded. | 1 Each Emmet's Silver Probe and Applicator, with set screw handle. |
| 1 Loomis' Placenta Forceps. | 1 Buttles' Scarifier. |
| 1 Vectis, with handle. | 1 Nott's Tenaculum. |
| 1 Set of Barnes' Dilators. | 1 Sims' Uterine Elevator. |
| 1 Uterine Dilating Catheter. | 1 Pair Sims' Scissors. |
| 1 Small Tampon. | 1 Intra-uterine Suppository Tube, hard rubber. |
| 1 Breast Pump, Penis Congestor, and Transfusion Glass, combined. | 2 English Gum Elastic Catheters. |
| ½ Dozen Sponge Tents. | 1 Fryer's Transfusion Set. |
| 1 " Sea Tangle Tents. | 1 Sims' Sigmoid Catheter. |
| 1 Bottle, Glass Stoppered, and Glass covered, for Little's saline solution. | 1 Goodyear Union Syringe. |
| | 1 Sponge Tent Applicator |

Arranged in a wooden, calfskin covered case, valise form, with lock and key, and German silver catches, and lined with purple velvet; 21 inches long, 8 inches wide, 5 inches deep, inside measurement. Case opens in the center.

Fig. 3867. Dr. A. Reeve Jackson's Gynæcological Case, contains:

- | | |
|---|--|
| 1 Jackson's base expanding Speculum. | 1 Thomas' Blunt Curette, small. |
| 1 Jackson's Perineal Retractor. | 1 Wylie's Large Sharp Curette. |
| 1 Sims' Speculum, with one Broad Blade. | 1 Simon's small Sharp Curette. |
| 1 Sims' Best Uterine Sound. | 1 No. 10 Soft Rubber Catheter. |
| 1 Byford's Dressing Forcep. | 1 Improved Russian Needle Holder. |
| 1 Jackson's Tissue Forcep. | 2 Olive Tip Best Web Bougies. |
| 1 Jackson's small Vulsellum Forcep. | (These are used instead of Sounds in cases of flexions.) |
| 2 Jackson's Sponge Holders. | 1 Long Handle Bistoury. |
| 3 Jackson's Applicators. | 1 Dozen Tupello Tents, assorted. |
| 1 Jenks' Scissors. | 1 Bottle No. 3 Catgut Ligature. |
| 1 Buttles' Scarifier. | 3 Cards Silk, Nos. 10, 12 and 14. |
| 1 Jackson's Cervical Needle. | 1 Doz. assorted Cervical and Perineum Needles. |
| 1 Thomas' Blunt Curette, large. | |

In addition to these the operator should provide himself with absorbent cotton, antiseptic sponges, glycerine, vaseline, Churchill's solution of iodine and a solution of alum in glycerine and water, one part to eight. The small instruments, in a roll up pouch and all in a substantial instrument bag.

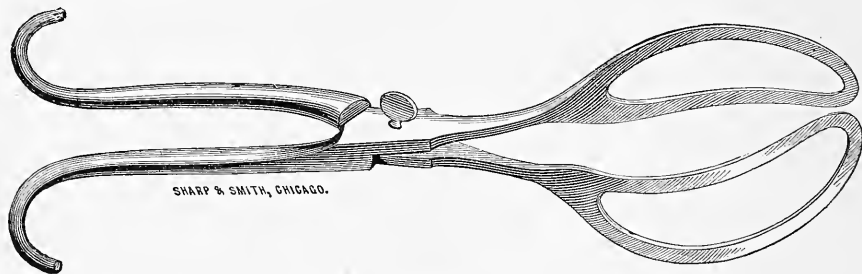
Fig. 3865. Buttles' Set of Uterine Instruments, contains:

2 Glass Specula; 1 Hard Rubber Syringe with two long pipes; (1 Simpson's Sound; 1 Flexible Probe; 1 Sims' Razor Shaped Knife; 1 Sponge Holder; 1 Cotton Expeller; all fitting one handle). 1 Budd's Whalebone Probe; 1 Scarifier and Tenaculum; 1 Vial to carry Caustic. In a Russet Leather Case, with metal hinge and lock, lined with oil dyed velvet.

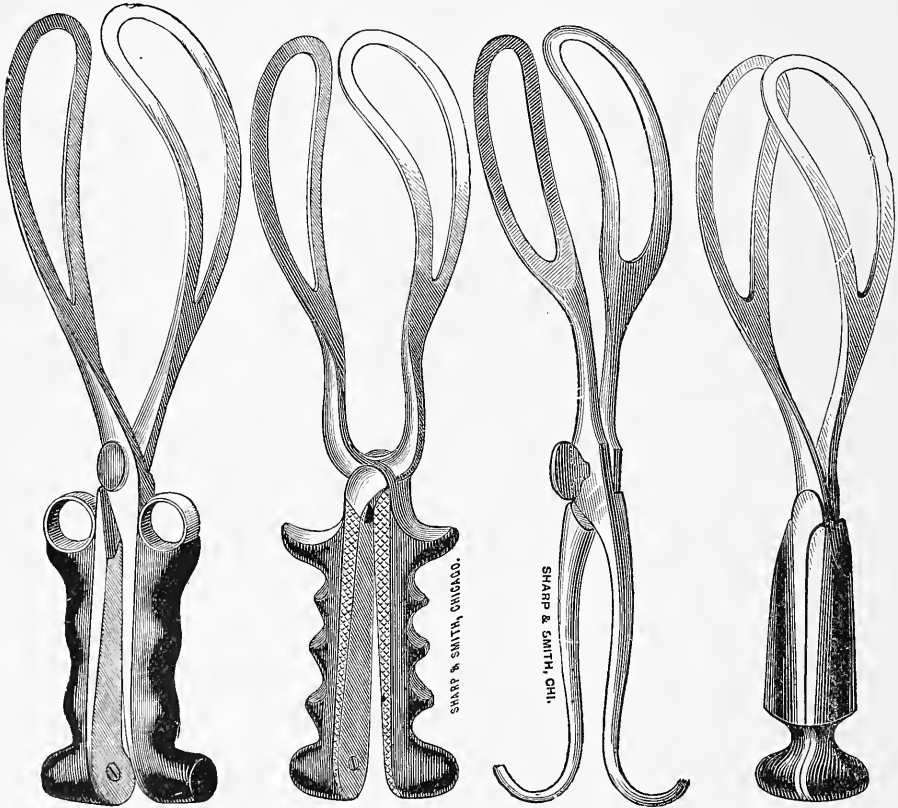
OBSTETRICAL INSTRUMENTS.

FORCEPS.

FIG.						
*3900	Bedford's Obstetrical Forceps, nickel plated	.....	\$	6	00	
*3901	Simpson's	"	"	"	"	long..... 6 00
3902	"	"	"	"	"	short..... 4 50
*3903	Wallace's	"	"	"	" 6 00
*3904	Hodge's	"	"	"	" 5 00
*3905	Denman's	"	"	"	" 6 00



3903



3900

3901

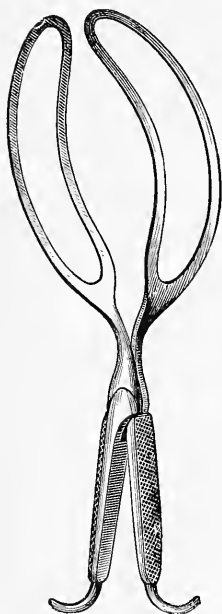
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3905

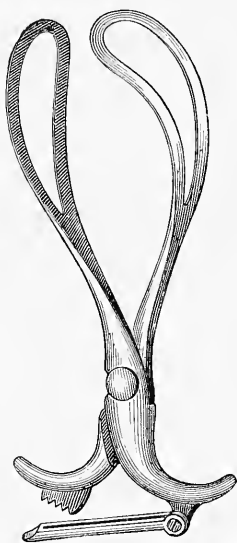
All instruments designated by a * are illustrated.

OBSTETRICAL FORCEPS.

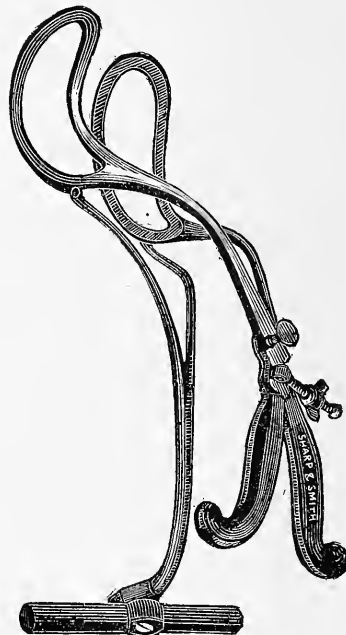
FIG.					
*3912	Hunter's	Obstetrical Forceps, new, nickel plated.....	\$	7	00
*3913	Clark's	" " (Chicago).....		5	50
*3914	Sawyer's	" " new, nickel plated.....		4	50
*3915	Naegeli's	" " nickel plated.....		6	00
*3916	Tarnier's	" "		18	75
3917	Knight's	" " nickel plated.....		6	00
3918	Duncan's	" " " "		5	00
3919	Gillman's	" " " "		6	50
3920	Henrotin's	" " " "		6	25



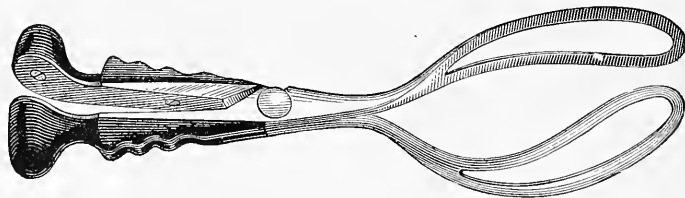
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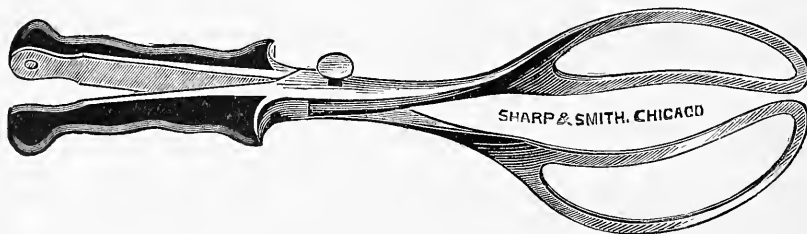
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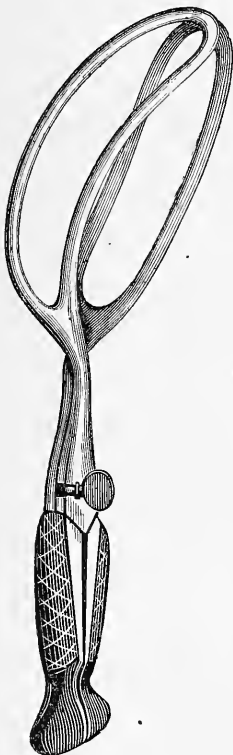
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3913

OBSTETRICAL FORCEPS.

FIG.					
*3921	Hale's Obstetrical Forceps, short	\$	5	00
3922	" " " long		6	50
*3923	Jenks' " " " "	.....		6	25
*3924	" " " short	.....		4	50
3925	White's " " nickel plated	.....		6	00
*3926	Comstock's " " " "	.....		5	50
*3927	Budd's " " " "	.....		6	00
3928	Newman's " " " "	.....		5	00
3929	Hale's Pocket Obstetrical Forceps, nickel plated	.....		5	00
3930	McLean's " " " "		6	25
*3931	Robertson's " " " "		6	00
3932	Bond's " " " "		6	00
3933	Quackenbush's " " " "		6	00



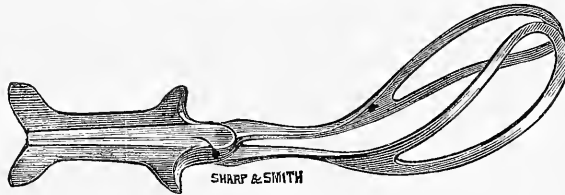
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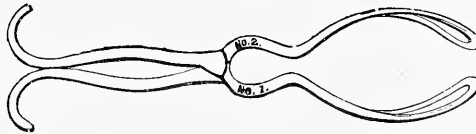
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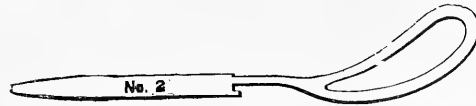
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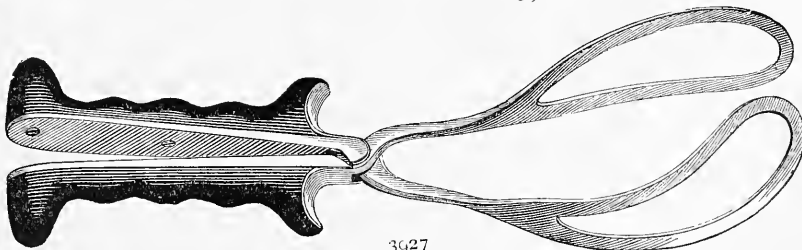
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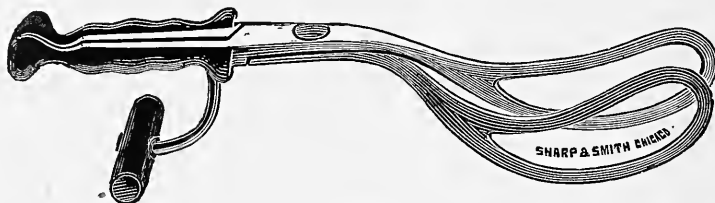
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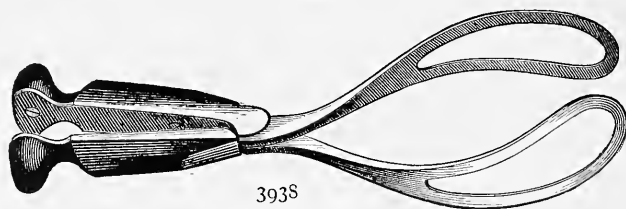
OBSTETRICAL FORCEPS.

FIG.

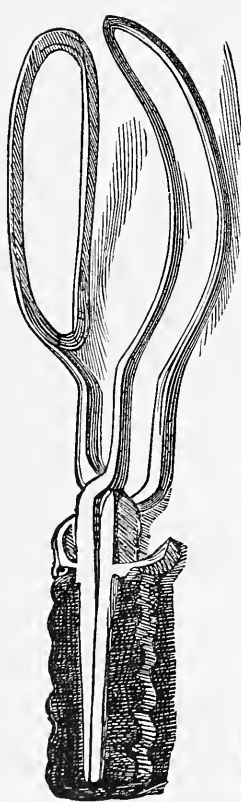
*3934	Dr. Hobbs' New Obstetrical Forceps.....	\$9 00
*3935	Dr. Adam Miller's ".....	9 00
*3936	Barclay's ".....	9 00
*3937	Thomas' ".....	5 25
*3938	Denman's ".....	6 00



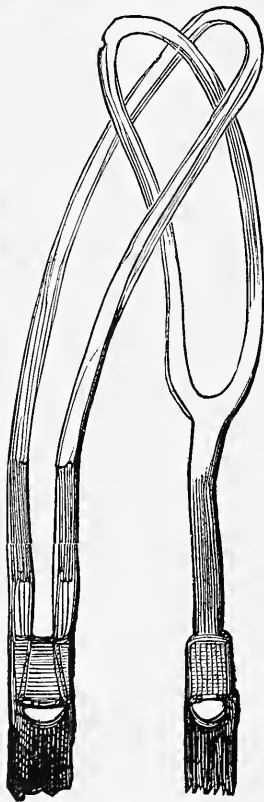
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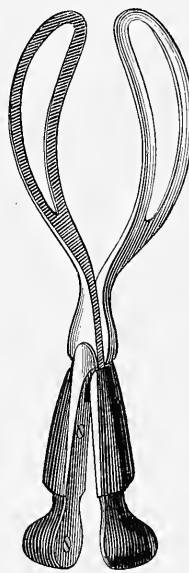
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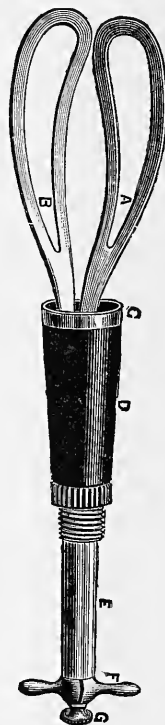
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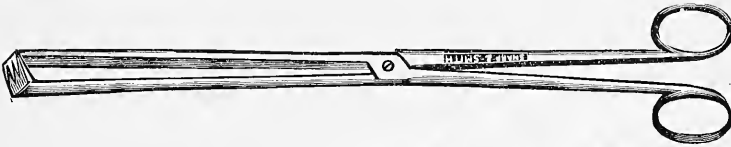


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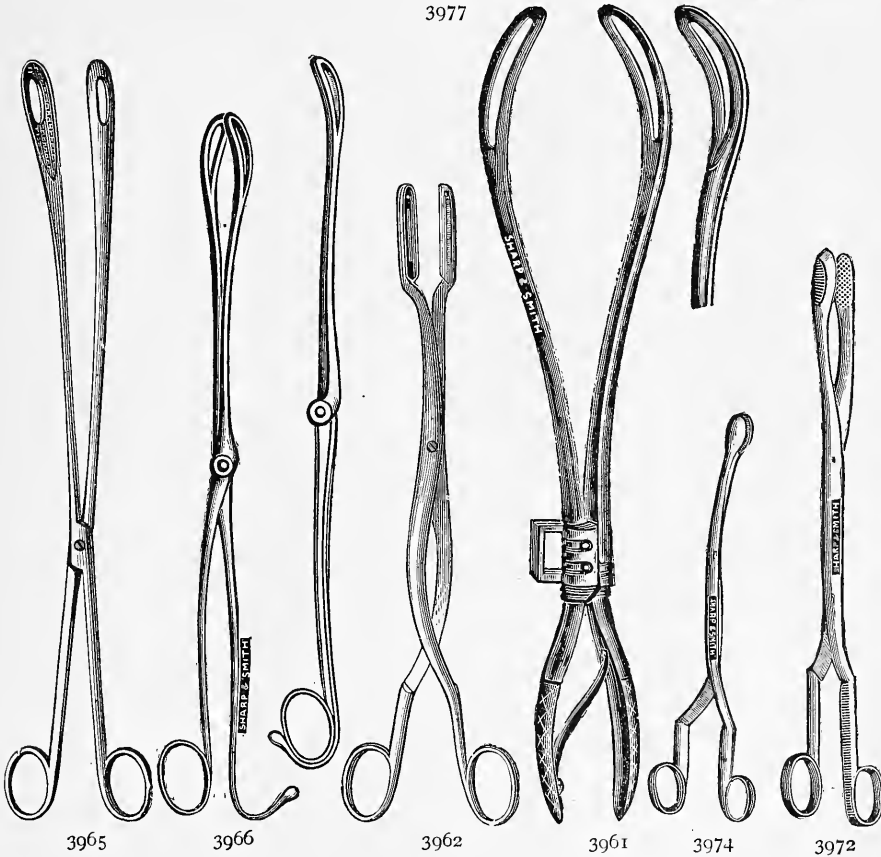


OBSTETRICAL—CRANIOTOMY AND EMBRYOTOMY FORCEPS.

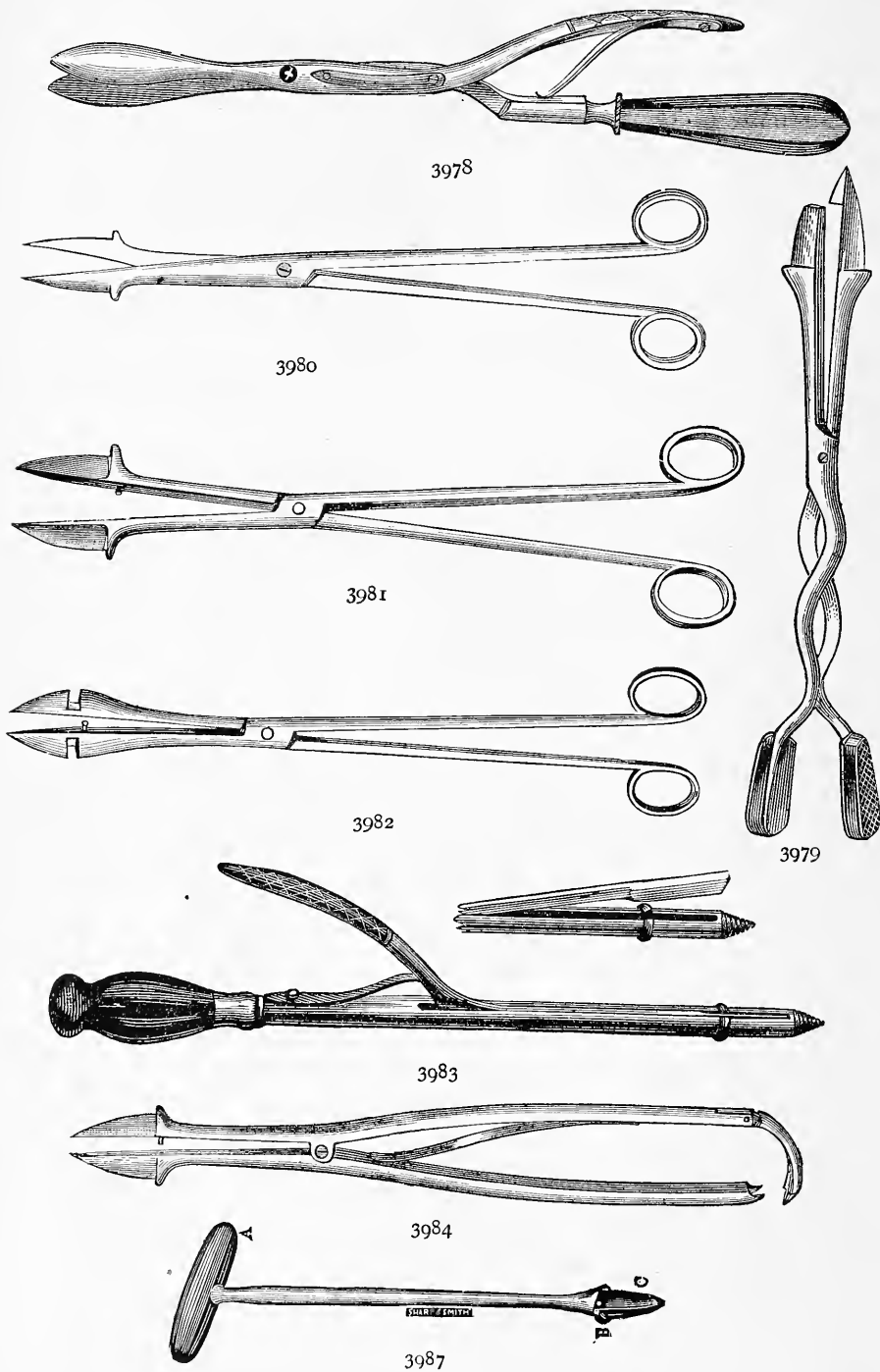
FIG.			
*3961	Batchelder's Embryotomy Forceps.....		\$9 00
*3962	Double Crossing ".....		2 25
3963	Nickel-plated Placenta Forceps.....		1 75
3964	Munde's ".....		2 25
*3965	Budd's Nickel-plated Placenta Forceps.....		2 25
*3966	Loomis' ".....		4 50
3967	Tiemann & Co.'s ".....		1 85
3968	Hodge's ".....		4 50
3969	Bond's ".....		2 25
3970	Fenestrated, nickel-plated Placenta Forceps....		2 25
3971	Double Crossing ".....		2 25
*3972	Chamberlain's ".....		3 25
3973	Clark's ".....		2 00
*3974	Hart's ".....		2 25
3975	Schnetter's ".....		4 50
3976	Carey's Ovum and ".....		2 75
*3977	Dentated ".....		1 85



3977



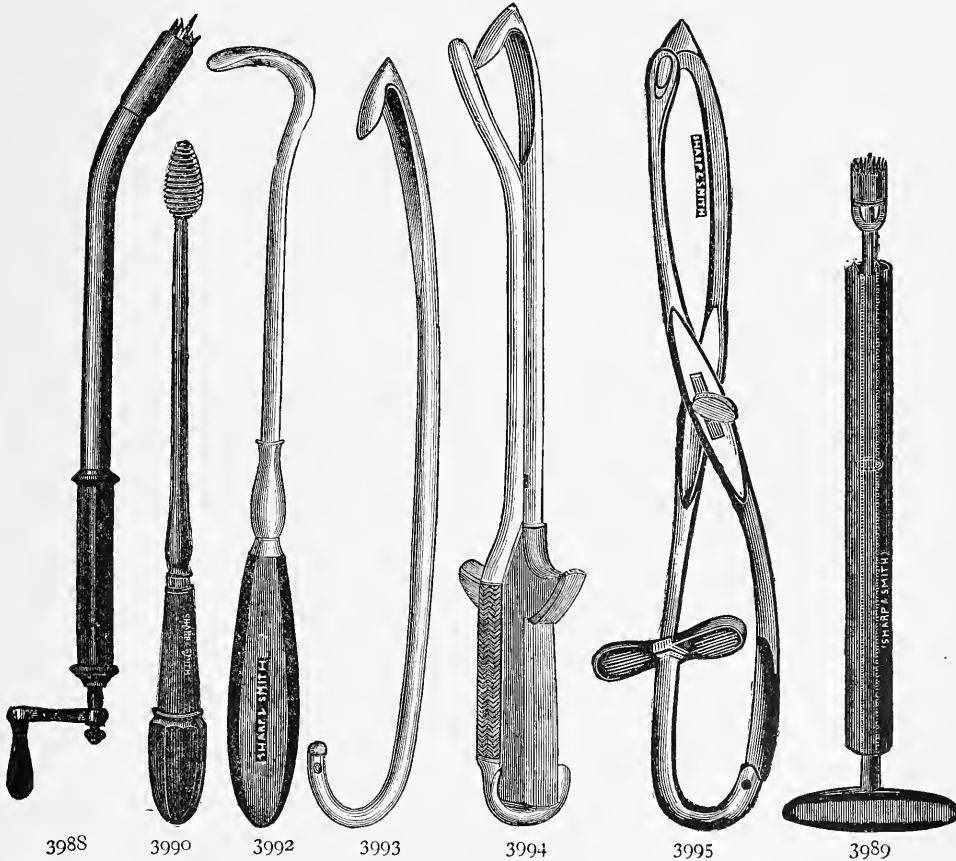
CRANIOTOMY PERFORATORS.



CRANIOTOMY PERFORATORS.

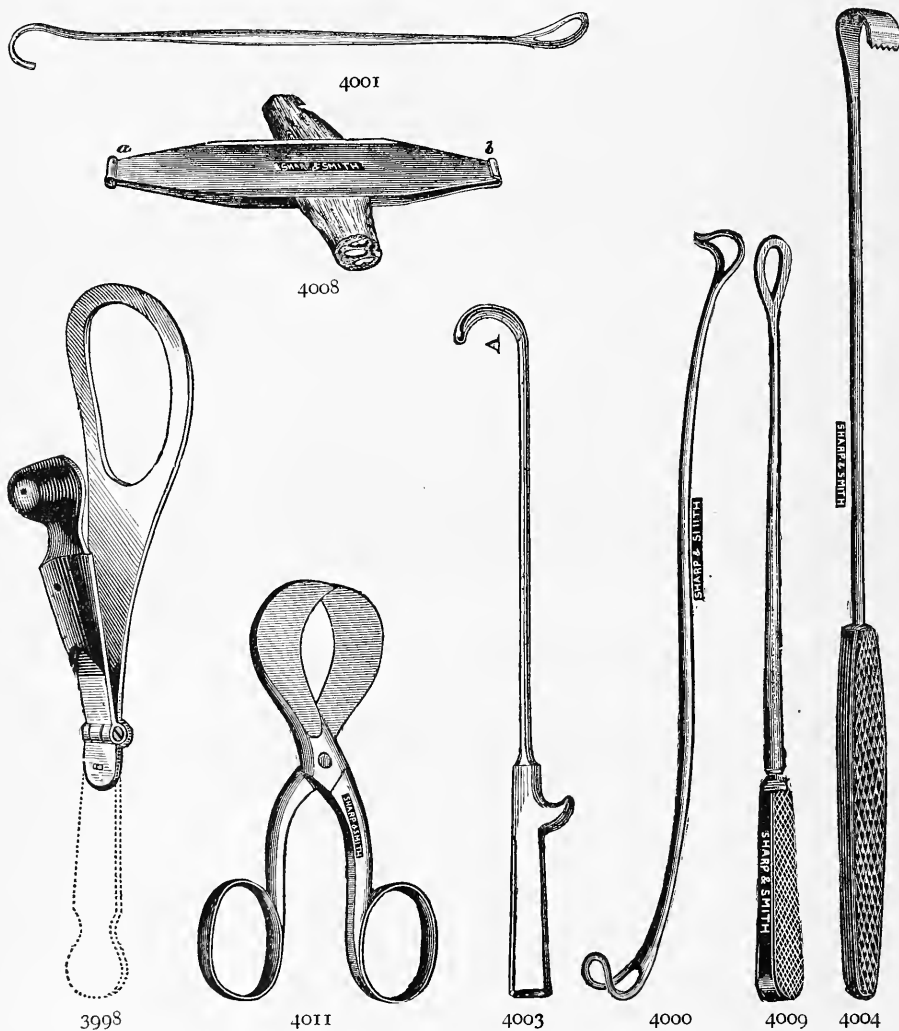
FIG.

*3978	Blot's Cranium Perforator.....	\$ 4 50
*3979	Holmes' Double Crossing Perforator.....	4 00
*3980	Bedford's Cranium ".....	2 25
*3981	Smellie's ".....	1 85
*3982	Simpson's ".....	2 25
*3983	Thomas' ".....	5 00
*3984	Naegeli's ".....	3 00
3985	Bachelor's ".....	3 75
3986	Hodges' ".....	3 75
*3987	Garland's ".....	3 00
*3988	Braun's Trephine.....	11 25
*3989	Truehart's ".....	3 75
*3990	Lucas' ".....	
3991	Plain Ebony Handle, Blunt Hook.....	1 15
*3992	Taylor's ".....	1 15
*3993	Blunt Hook and Crotchet Combined.....	1 15
*3994	Bedford's " " " ".....	4 50
*3995	Budd's " " " " (guarded).....	3 30
3996	Taylor's " " " ".....	1 25



OBSTETRICAL—CRANIOTOMY HOOKS AND VECTIS.

FIG.		
3997	Ebony Handle Vectis.....	\$1 75
*3998	“ “ “ (folding).....	3 00
3999	Ryerson's Improved Vectis.....	3 75
*4000	Leavitt's Placenta Hook.....	1 25
*4001	Dewee's “ “ and Carey's Lever.....	85
4002	Bedford's “ “.....	2 25
*4003	Decapitating “ “.....	2 00
*4004	Clark's Placenta “ “.....	2 50
4005	Ebony Handle Crotchet plain.....	1 15
4006	Taylor's Ebony Handle Crotchet.....	1 25
4007	Elliott's “ “ “.....	1 50
*4008	Pulling's Funis Clamp.....	40
*4009	Munde's Placenta Curette.....	2 00
4010	Robbins' “ Spoon.....	2 00
*4011	Sharp & Smith's Placenta Scissors.....	1 50



All instruments designated by a * are illustrated.

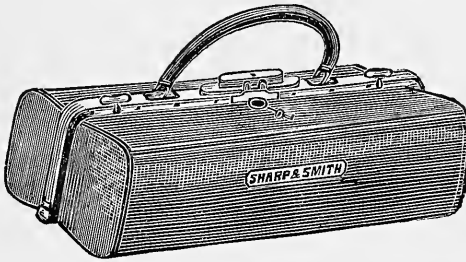
OBSTETRICAL.

FIG.

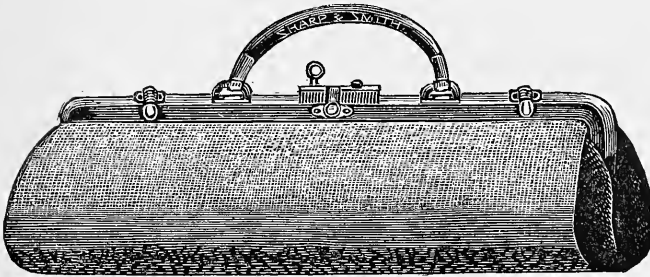
4012	Bandeloque's Pelvimeter.....	\$ 6 50
4013	King's ".....	3 00
4014	Porte Cordon.....	3 00
4015	Leather Covered Manikin and Fœtus, for College use.....	40 00

French Manikins all kinds, imported to order.

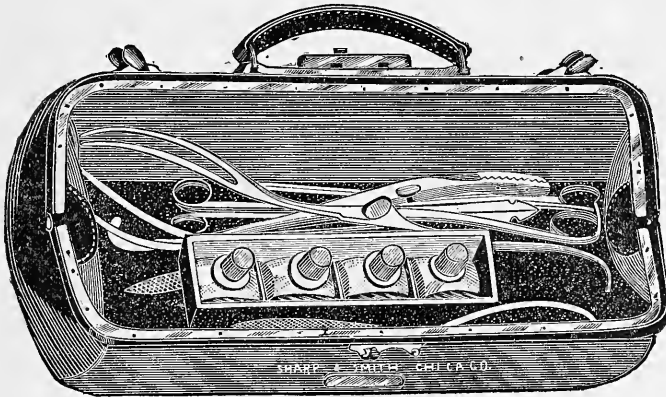
*4016	Obstetrical Bags, 12 inches long, black or brown.....	2 75
*4017	" " 13 " " " ".....	2 75
*4018	" " 14 " " " ".....	3 00
*4019	" " 15 " " " ".....	3 25
*4020	" " 16 " " " ".....	3 50
*4021	" " 17 " " " ".....	4 00
*4022	" " 15 to 16 " " " (empty).....	4 50
4023	" Pouches, Morocco, Chamois-Lined.....	5 00
4024	" " Plain.....	3 00



4016 to 4018



4019 to 4021



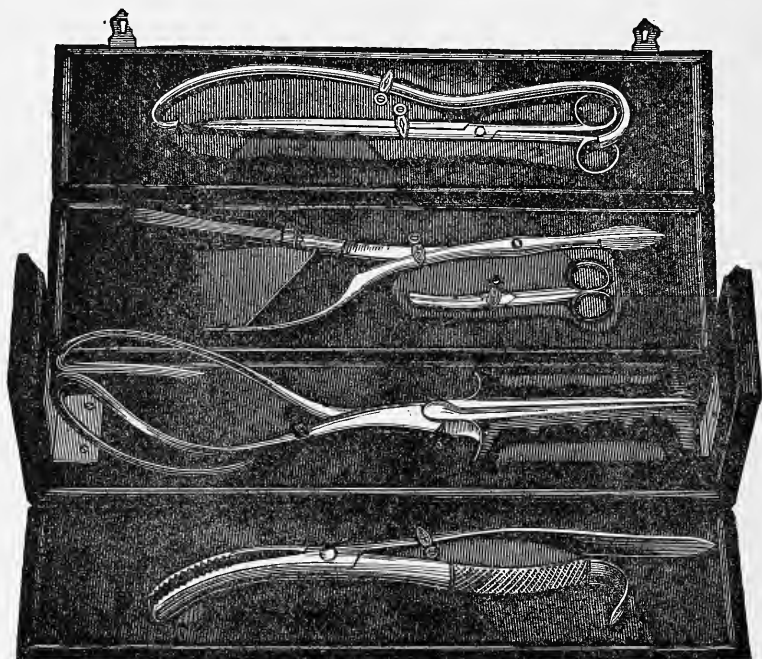
4022

All of our leather bags are made of the best material, lined with Buckskin, and have pockets for holding powders, etc.

To the price of any of these bags add 50c. if you desire to have bottles with them (6).

Fig. 4022. Represents any of our cases open and with bottles blocked in. Price of this case empty with bottles.....\$4 50

OBSTETRICAL CASES.



4025

Fig. 4025. ELLIOTT'S OBSTETRIC SET, Containing:

- 1 pair Elliott's Long Forceps; 1 Blot's Perforator; 1 Blunt Hook and Crotchet; 1 pair Placenta Forceps; 1 pair Thomas' Craniotomy Forceps; 1 pair flat Curve Scissors.....\$26 25

Fig. 4026. DR. HODGES' OBSTETRIC POUCH, Containing:

- 1 Hodges' Forceps; 1 Smellie's Perforator; 1 Blunt Hook and Crotchet combined, in a leather pouch lined, to roll.....\$11 25

Fig. 4027. DR. BEDFORD'S OBSTETRIC POUCH, Containing:

- 1 Bedford's Forceps; 1 Bedford's Perforator; 1 Placenta Forceps; 1 Blunt Hook and Crotchet combined, in a leather pouch, lined, to roll, \$15 00

Fig. 4028. DR. ELLIOTT'S OBSTETRIC POUCH, Containing:

- 1 Elliott's Forceps; 1 Blot's Perforator; 1 Placenta Forceps; 1 Blunt Hook and Crotchet combined, in a leather pouch, to roll.....\$18 75

Fig. 4029. OBSTETRIC POUCH, Containing:

- 1 pair Hodges' Forceps; 1 Blunt Hook and Crotchet; 1 pair Placenta Forceps; 1 Vectis; 1 Perforator; 1 pair Meigs' Craniotomy Forceps. \$16 25
Obstetrical Pouches, Rolling, best Morocco leather, lined with Chamois Skin 3 00

Obstetrical Cases of any Style made to order.

SHARP & SMITH'S COMBINED OFFICE AND GYNÆCOLOGICAL CHAIR AND OPERATING TABLE.

While we have and can furnish *all* styles of Operating Chairs or Tables, we especially recommend the Chair, etc., known as "Sharp & Smith's Combined Office and Gynecological Chair and Operating Table."

We recommend this because the best physicians and surgeons of Chicago have assured us that, with it, more can be accomplished, practically, than any other device known of in that line. However, if the description of our chair should not be sufficient to warrant an order, and more description is necessary, we will be glad to furnish it. We wish also to say that the "Footstool" and "Pillow" that accompany this "Chair" are ("accidentally") not shown in the cut, but both are furnished with each chair leaving our office.



Fig. 4030. No. 1 represents the Chair in simple position, and as it appears in the office or private room.

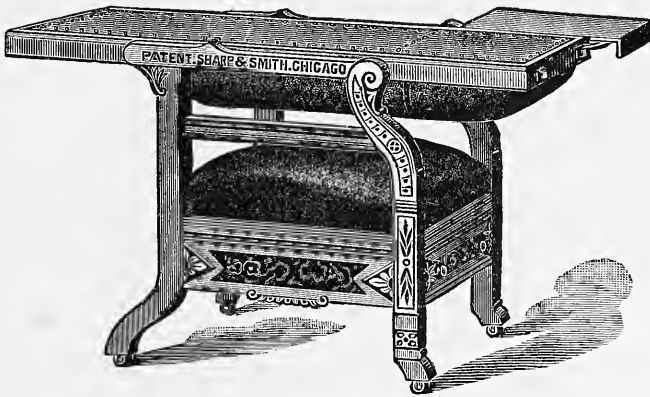
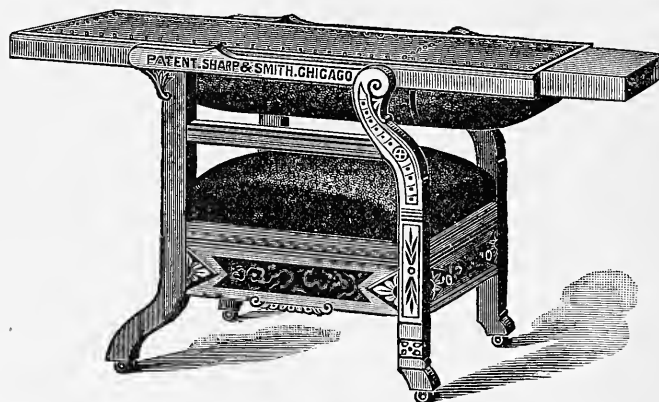


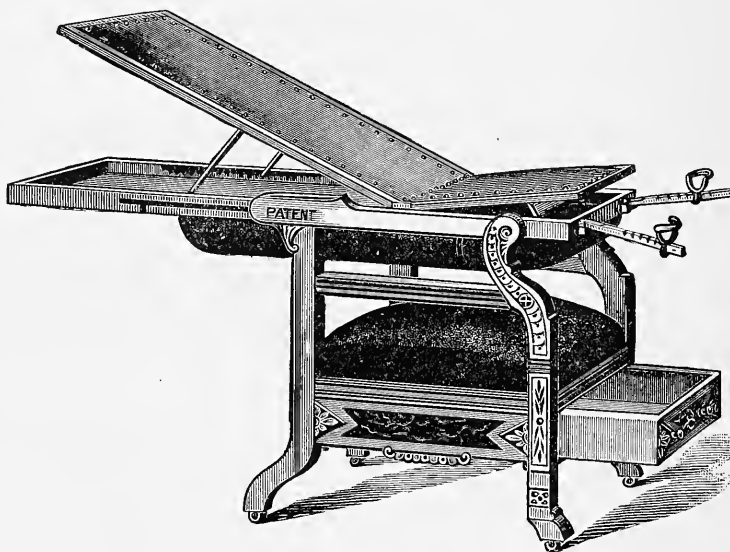
Fig. 4030. No. 2 represents the Chair turned over from the back. It can be so turned with the greatest ease requiring comparatively no exertion. In this cut is also shown an extension which is attached to the foot end, thereby making the chair in table form sufficiently long for any operation.

SHARP & SMITH'S COMBINED OFFICE AND GYNÆCOLOGICAL CHAIR AND OPERATING TABLE.



4030

Fig. 4030. No. 3 represents the Chair with extension removed from the foot of the Chair to the side, for "Sims' Position."



4030

Fig. 4030. No. 4 represents the Chair in the Gynæcological position, with stirrup attachments, which can be placed at any angle or distance from the foot of Chair. Under the seat will be seen a drawer which contains all accessories, including the extension piece and fittings, leaving the Chair when not in use as shown in Fig. 1.

PRICES.

Chair Complete, in fine plush.....	\$55 00
" " " best leather.....	55 00
" " " imitation leather.....	50 00

SHARP & SMITH'S COMBINED OFFICE AND GYNÆCOLOGICAL CHAIR AND OPERATING TABLE.

See preceding pages.

This Chair works without "Cranks," "Levers" or "Ratchets."

Any position can be obtained instantly, and it is movable in any direction with but the strength of one finger. A convenient Ottoman, and a leather-covered Hair Pillow accompany the Chair. In the short space of time that this Chair has been on the market we have had innumerable testimonials as to its superiority over others, and we submit a few herewith.

TESTIMONIALS.

A. C. Cowperthwaite, M. D., LL.D., Prof. Materia Medica and Diseases of Women, State University of Iowa, Iowa City, says in his Textbook on Gynecology :

"The latest design of chair for Gynecological Works, and the one, in my opinion, best calculated for that purpose, at least for the general practitioner, is the 'Combined Office and Gynecological Chair and Operating Table,' recently devised by Sharp & Smith of Chicago. This chair is very simple in its adjustment, is easily operated, and when not in use forms a handsome and comfortable office chair."

Dr. De Laskie Miller, Professor of Obstetrics and Diseases of Children, Rush Medical College, Attending Physician for Diseases of Children and Accoucheurs, Presbyterian Hospital, Attending Obstetrician St. Luke's Free Hospital, Consulting Physician Woman's Hospital, Consulting Physician Home for Incurables, says:

"Messrs. Sharp & Smith:—I have examined your 'Combination Easy Chair,' Gynecological Chair and Operating Table. It certainly excels anything I have ever seen on account of its being so easily and quickly changed from one position to the other, and I failed to find any complicated machinery to get out of order. Its simplicity is a very desirable part of its construction."

S. A. McWilliams, A. M., M. D., Professor of Clinical Medicine, College of Physicians and Surgeons, says :

"Messrs. Sharp & Smith:—I am better pleased with your Gynecological Chair than any other I have seen, on account of its neatness, simplicity, durability and usefulness."

Dr. D. W. Graham, Professor of Surgery Woman's Med. College, Professor of Emergencies Chicago Training School, Attending Surgeon Presbyterian Hospital and Central Free Dispensary, Secretary Illinois State Medical Society, Editor Chicago Medico-Historical Society, says:

"Messrs. Sharp & Smith:—I have examined your Combined Chair and Operating Table. For simplicity and ease of adjustment it has no superior. It has more good features than any chair I know of, and I can highly recommend it."

Dr. E. H. Pratt, Professor of Principles and Practice of Surgery, Chicago Homeopathic Medical College, says among other things in praise of the Chair:

"Your new Chair is a clever invention and cannot fail to more than satisfy the most critical of operators."

SHARP & SMITH'S COMBINED OFFICE AND GYNÆCOLOGICAL CHAIR AND OPERATING TABLE.

TESTIMONIALS.—Continued.

Dr. D. A. K. Steele, Professor of Orthopedic Surgery (and also Secretary of) College of Physicians and Surgeons, Surgeon Cook County Hospital, says: "It is simply perfection."

P. M. Woodworth, M. D., attending physician Augustana Hospital, says: "Messrs. Sharp & Smith:—The new Surgeon's Chair is the most complete yet simple working chair it has been my privilege to examine, and the omission of cranks and springs is a great advantage. I consider it the best Gynecological Chair that I have seen."

W. F. Knoll, M. D., Surgeon's Department Central Homeopathic Hospital and Free Dispensary; Professor of Minor Surgery, Physiology and Pathology Chicago Homeopathic Medical College, says:

"Sharp & Smith:—I am very much pleased with the construction and operative qualities of your Surgical and Gynecological chair. It is a decided improvement in the right direction, and I am certain that any physician who has the pleasure of using it will bear testimony to its perfection."

Dr. Norval H. Pierce, under date of December 6, 1888, says:

"I consider the Sharp & Smith Operating Chair and Table the most perfect combination of practical usefulness, strength and elegance thus far offered to the surgeon."

We refer also to the following doctors, who appreciate, among many others, the superior qualities embraced in our Chair:

A. L. Clark, M. D., Prof. of Obstetrics and Diseases of Women and Clinical Gynecology at Bennett Medical College, Gynecology Bennett Hospital, Professor Diseases of Women Bennett Free Dispensary, Member State Board of Health.

A. E. Hoadley, M. D., Professor Anatomy College of Physicians and Surgeons, Professor of Surgery, Chicago Polyclinic.

A. L. Cory, M. D., Chicago, Surgeon of L. S. & M. S. R. R.

H. Wardner, M. D., Supt. Illinois Hospital for Insane.

Dr. G. W. Nesbitt, Sycamore, Ill.

Dr. Jno. E. Owens, Professor of Surgical Anatomy and Optical Surgery, Chicago Medical College, Attending Surgeon St. Luke's Free Hospital.

Dr. Charles Gilman Smith, Consulting Physician to Presbyterian Hospital, and Chicago Hospital for Women and Children.

F. L. Wadsworth, M. D., Physician in charge St. Joseph's Hospital, Professor of Physiology Woman's Medical College.

SHARP & SMITH,

MANUFACTURERS, IMPORTERS AND DEALERS IN

SURGICAL INSTRUMENTS AND APPLIANCES,

73 Randolph Street, CHICAGO.

DE PEW OPERATING CHAIR.

FIG.

*4031	No. 1 and 2, DePew Chair Upholstered in best leather.....	\$55 00
*4031	“ “ “ “ “ in fine monair plush.....	60 00



4031

CONVERTIBLE OPERATING CHAIR.

Chair in an Upright position. (Patented.)

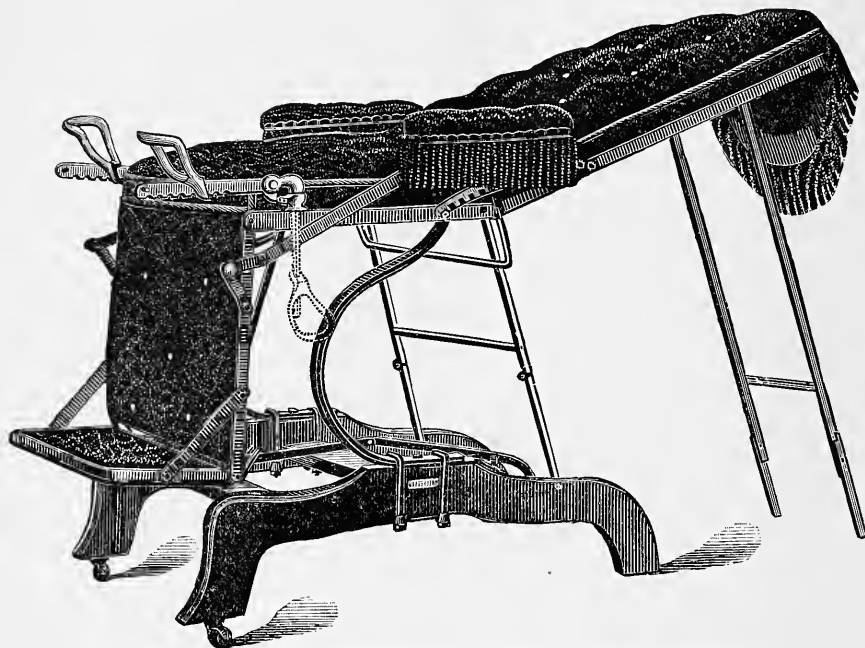
DE PEW OPERATING CHAIR.

Fig. 4031. CONVERTIBLE OPERATING CHAIR.

In position for Gynæcological Operation.

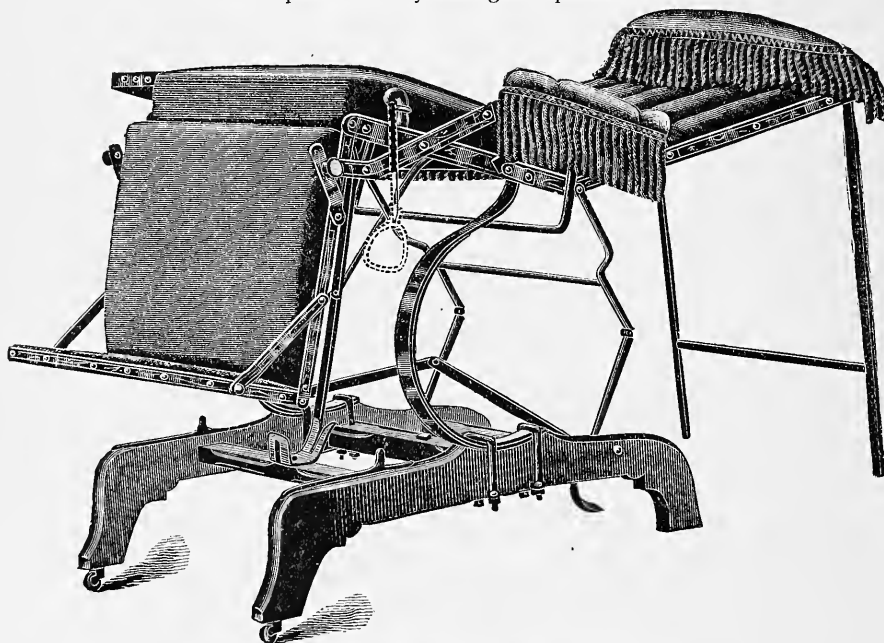


Fig. 4031. CONVERTIBLE OPERATING CHAIR.

Seat raised for Sims' Position.

THE ARCHER GYNÆCOLOGICAL CHAIR.

FIG.

*4032	The Archer Chair complete, with Seat Extension and Platform Step.....	\$ 60 00
4033	Leather Pillow to match, extra.....	5 00
4034	Foot Supports for Lithotomy position, extra.....	5 00
4035	Oculist Head-Rest, extra.....	10 00
4036	The Archer Chair complete with Seat Extension and platform Step and Head-Rest.	70 00

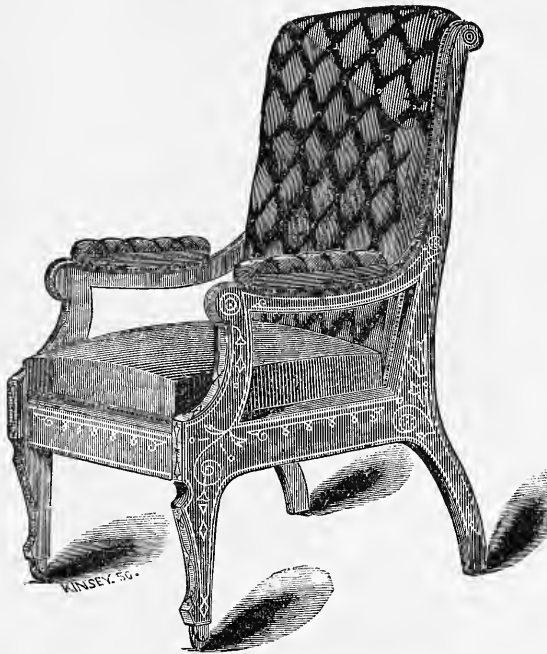


Fig. 4032. THE ARCHER CHAIR.

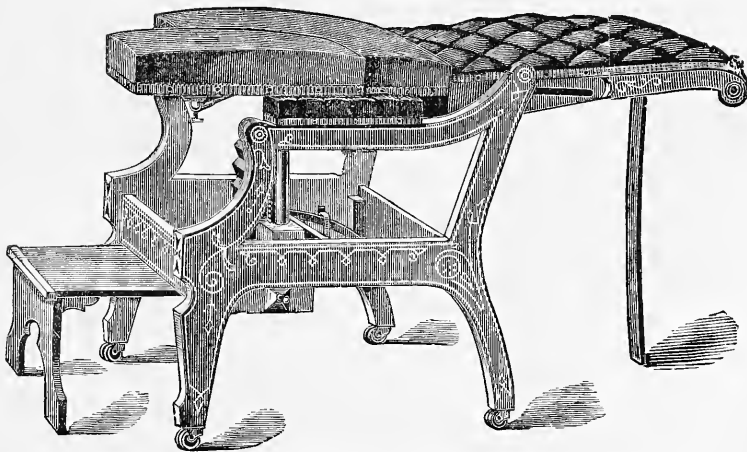


Fig. 4032. THE ARCHER CHAIR, (Sims' position).

GYNÆCOLOGICAL—CHAIRS.—Continued.

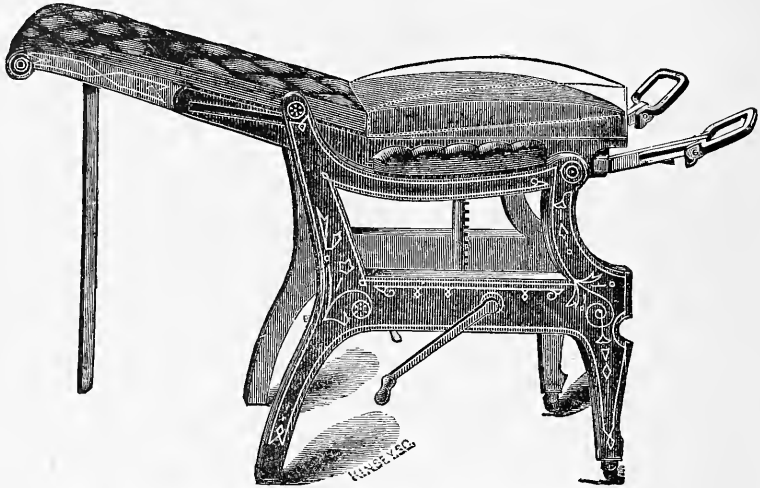
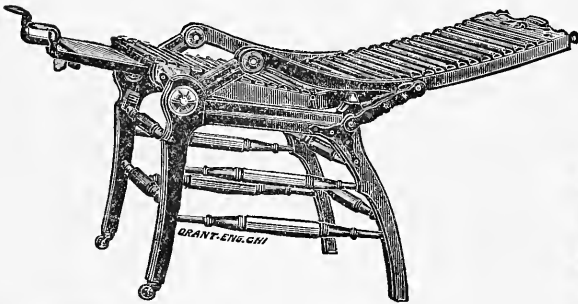
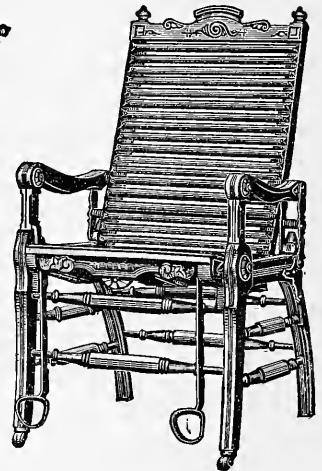


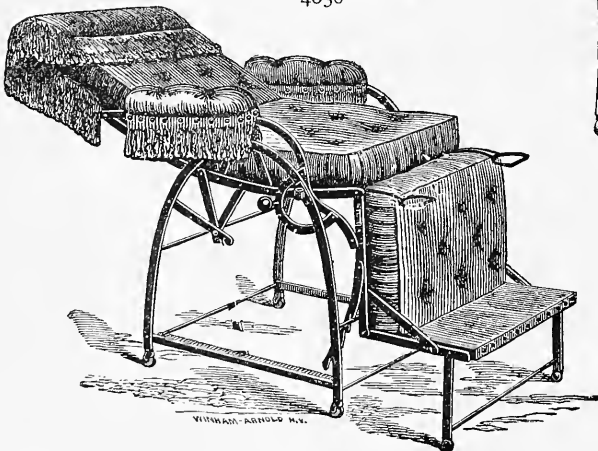
Fig. 4032.—THE ARCHER CHAIR (speculum position).



4038



4038

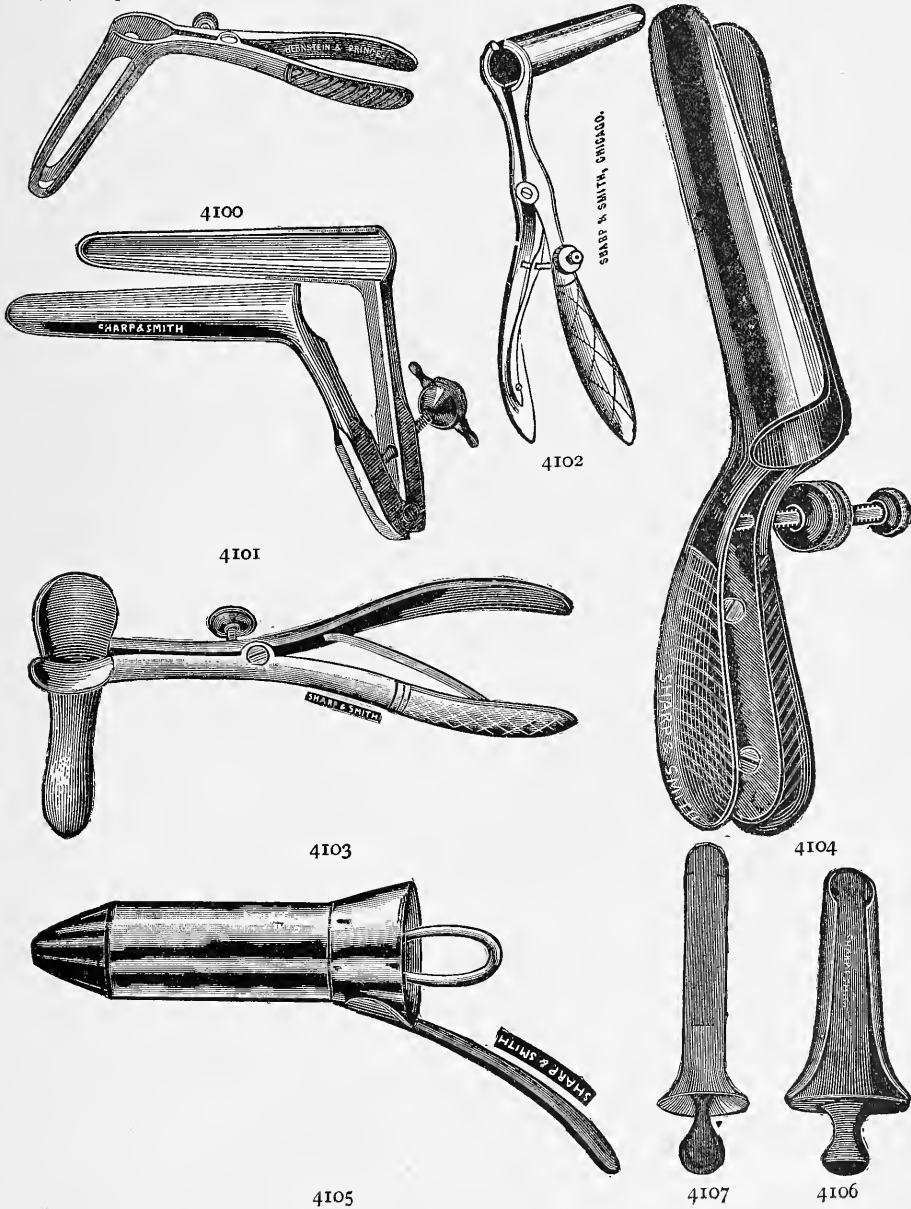


4037

FIG.		
*4037	Wilson's Surgical Chair, upholstered in rep.	\$36 00
4037	" " " " in best leather	45 00
*4038	Curtis' Gynecological Chair.	25 00

RECTAL INSTRUMENTS—SPECULUMS.

FIG.		
*4100	Sims' Bivalve Rectum Speculum Fenestrated.....	\$3 00
*4101	O'Reilley's Bivalve Rectum Speculum.....	2 50
*4102	Bodenheimer's " " ".....	2 50
*4103	Leonard's " " " (flange).....	2 75
*4104	Ricord's " " ".....	3 00
*4105	Dr. E. Andrews' (Chicago), Rectum Speculum.....	2 00
*4106	Allingham's Rectum Speculum.....	4 50
*4107	Squire's " " ".....	4 00

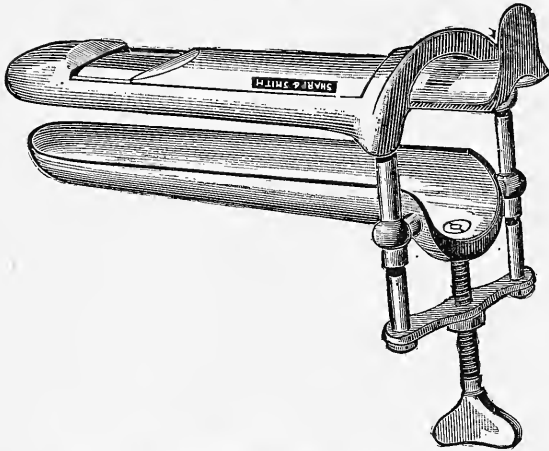


RECTAL INSTRUMENTS—SPECULUMS.

FIG.		
*4108	Dr. J. B. Pouncey's Rectum Speculum.....	\$10 00
*4109	Haslam's Rectum Speculum	3 50
*4110	Aloe's " "	5 00
*4111	T. & Co.'s Three Blade Rectum Speculum.....	7 50

AN IMPROVED RECTAL SPECULUM.

By J. B. POUNCEY, M. D., Birmingham, Ala.

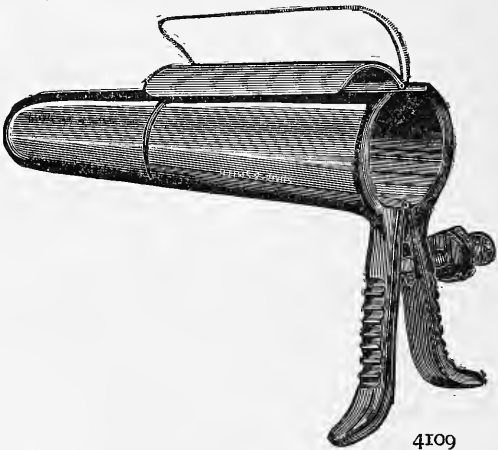


4108

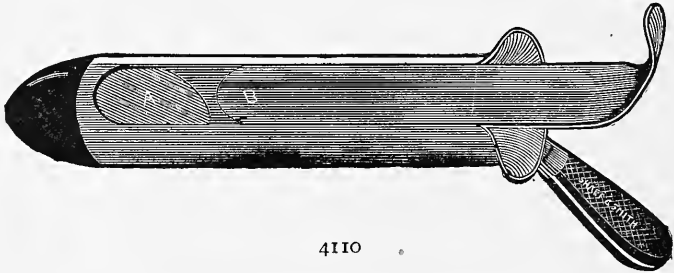
The points of superiority are: 1st. The instrument, as shown in the cut, has two blades, the lower blade fitting into the upper, making it small and compact. 2d. The facility and ease of introducing. 3d. After the introduction of the instrument the rectum can be dilated to any desired extent by running up the screw attached to the blades. 4th. If this is done, any tumors, fistulous tracts, ulcers, etc., are in plain view for treatment. 5th. The blades dilate equally at both the internal and external openings. 6th. There is a wide slot in the upper blade, covered by a slide, which, when withdrawn, exposes the diseased parts fully to view.



4111



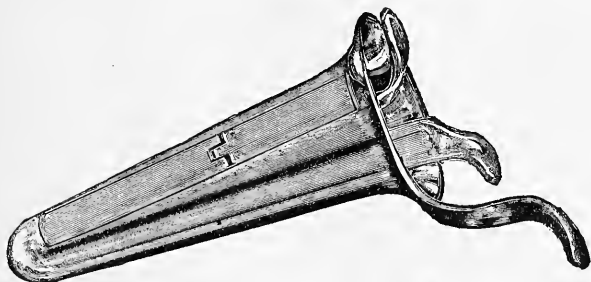
4109



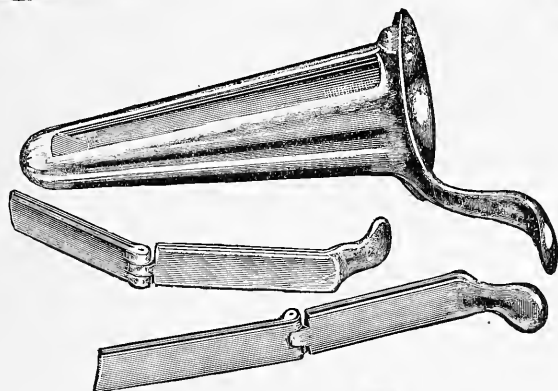
4110

See Pratt's Instruments, beginning page 691.

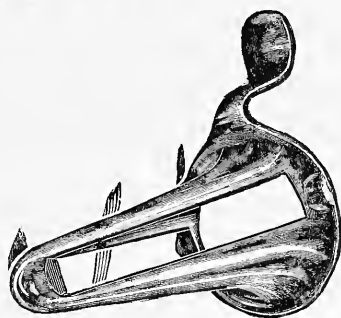
THE NILES RECTAL SPECULUM.

**Fig. 1.**

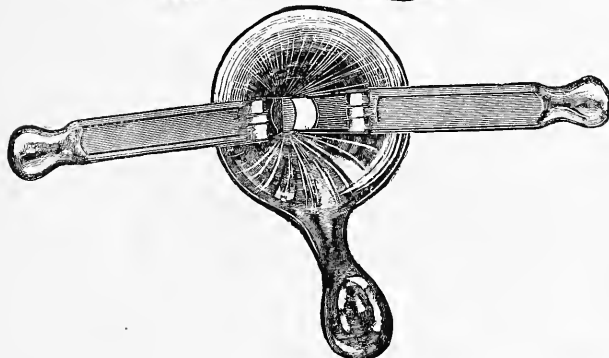
Shows the instrument ready for use.

**Fig. 2.**

Shows the slides withdrawn, and illustrates the character of the milled edges which fit in the grooves of the slots.

**Fig. 3.**

Shows the slot on each side, giving a full view of their position.

**Fig. 4.**

Gives a front view of the instrument with the slides half drawn and bent at the joints, exposing the inner half of the slots.

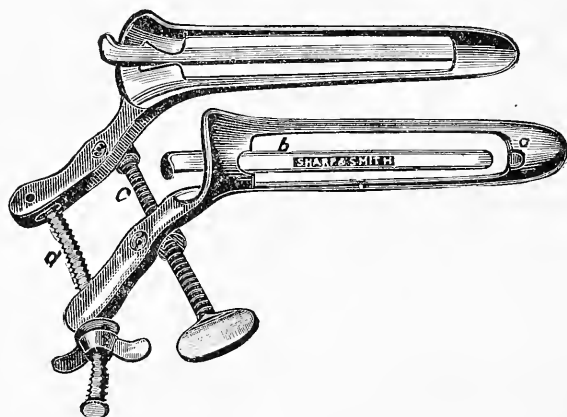
RECTUM INSTRUMENTS—SPECULA.

FIG.	
*4112	Niles' Rectum Speculum (for illustration see preceding page)..\$ 5 00
*4113	O'Neal's Rectum Speculum..... 5 00
*4114	Keen's " " 5 25

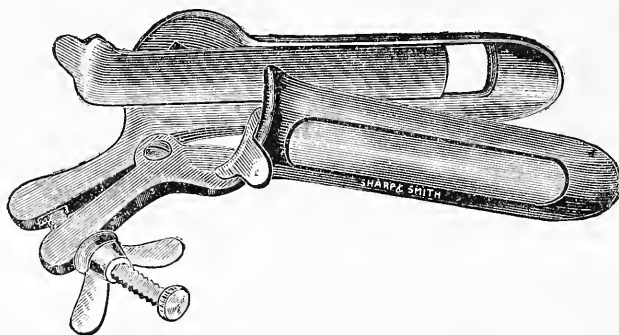
Fig. 4112 (Niles' Rectum Speculum.) Its advantages are: That it is a double inclined plane, and has double slides hinged in the center, the unique character of the milled edges of which make it impossible to wound the mucous membrane, either on the withdrawal of the slides or instrument.

You can expose one-half of the surface on either side, which is necessary whenever acids or caustics are used in treating fissures or ulcers.

It is constructed upon purely scientific principles. It is shaped similar to the index finger, making its introduction easy for the physician, and painless to the patient, even in extremely irritable conditions, and gives a complete view of the parts, thereby facilitating a ready diagnosis of the case.



4114



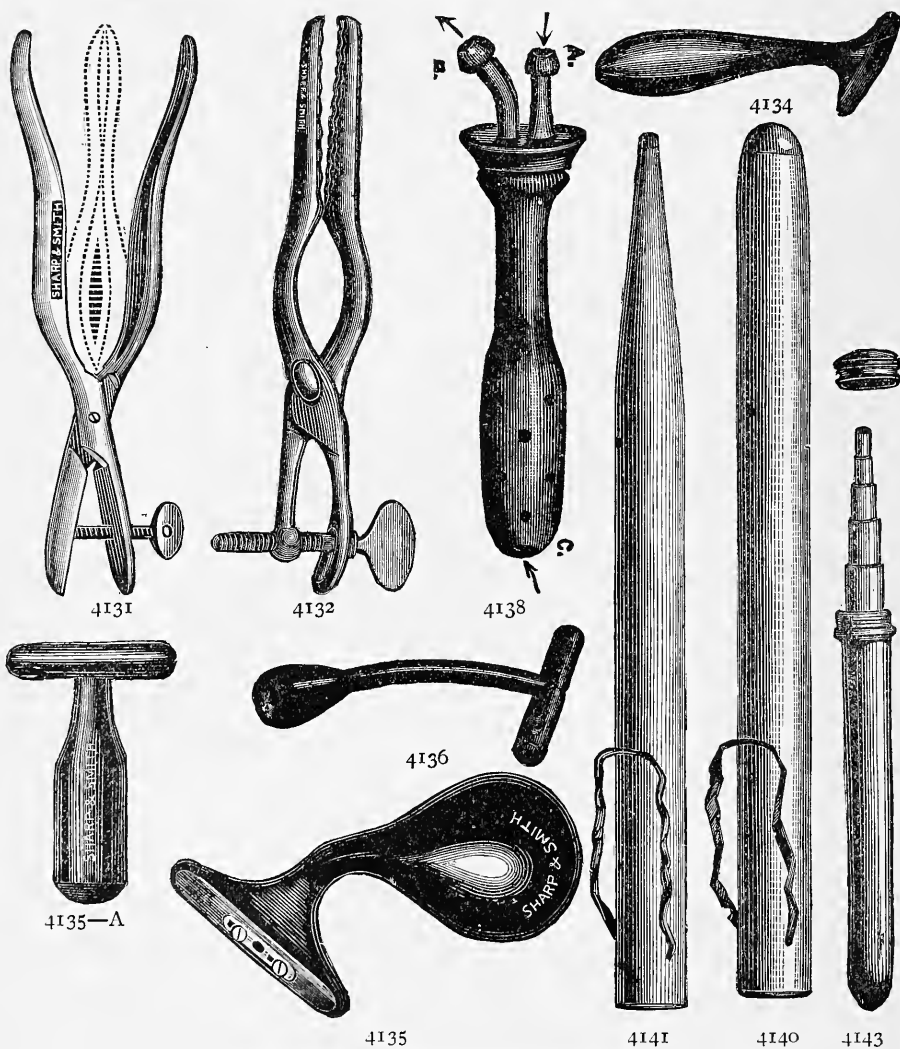
4113

See Pratt's Instruments, beginning page 691.

All instruments designated by a * are illustrated.

RECTAL INSTRUMENTS—DILATORS.

FIG.		
*4131	Sims' Rectal Dilator.....	\$3 40
*4132	Dupuytren's Enterotome	3 75
4133	Little's Rectal Dilator	9 00
*4134	Bolton's Pile Plug.....	90
*4135	Trosseau's "	1 50
*4135-A	Plain H. R. Pile Plug.....	90
*4136	Reed's Pile Plug.....	1 00
4137	Kent's "	1 50
*4138	Bodenheimer's Rectal Irrigator.....	2 25
4139	Munde's "	1 90
*4140	Cylindrical " Bougies, 1 to 12, each.....	75
*4141	Conical " " 1 to 12, "	1 00
4142	Olive Tip " " 1 to 12, "	1 25
*4143	Hard Rubber " " set of six in Hard Rubber Case	3 50
4144	Bodenheimer's Set of 10 Exploring Bougies.....	7 50



See Pratt's instruments, beginning page 691.

RECTAL INSTRUMENTS.—Continued.

FIG.

- 4145 Soft Rubber Rectal Bougies, according to size.....\$1 00 to 2 00
 *4146 Dr. A. H. Meisenbach's Rectal Plug.....

A Rectal Plug for Senn's Method of Insufflation of Hydrogen Gas.

By A. H. MEISENBACH, M. D., St. Louis, Mo.

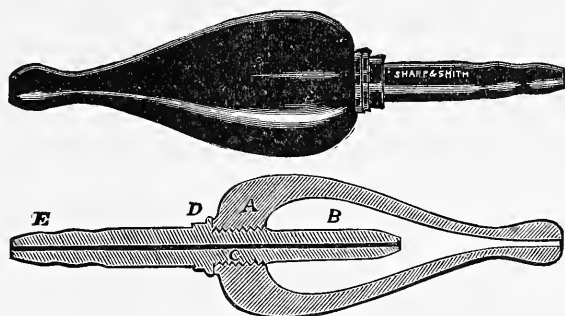
In repeating Dr. Senn's experiments, of insufflation per rectum of hydrogen gas, I found considerable difficulty at times, to prevent the gas from escaping out of the rectum, using the ordinary syringe tip. I found this to be the case in experimenting on dogs, and also on the human cadaver.

Dr. Senn recommends in his paper on "Insufflation of Hydrogen Gas per Rectum," etc., that "an assistant hold the margin of the rectum around the syringe tip."

In order to obviate the inconveniences of an ordinary syringe tip, and do away with the need of an assistant in controlling the margin of the rectum, I devised the herein described rectal plug.

This plug has given great satisfaction, having used it in applying Senn's test in four cases of gunshot wounds of the abdomen which were brought to the City Hospital, and in a case of obstruction of the bowel due to the rupture of a Fallopian pregnancy, where obstruction was produced by an immense coagulum—later case occurring in private practice of Dr. Hornsby, and in which I applied "Senn's Test," demonstrating the value of this measure in diagnosing intestinal obstruction.

In the above applications of Senn's test the plug completely plugged the rectum, and effectually prevented the regurgitation of the gas, and allowed the gas bag and plug to be controlled by one person. The plug is made of hard rubber. The annexed cut shows a half size perspective and sectional view of



4146

plug. "A" represents cone-like plug, with tip similar to ordinary syringe tip. B is a hollow chamber in plug into which extends tip E, on which is a thread which screws into plug as shown at C. At D on tip E is a square shoulder and a round collar. The square shoulder is for the purpose of allowing a wrench to be used to tighten the tip into plug. Between collar on plug and collar on tip at D a washer is used, so as to insure perfect air-tightness. The end of Tip E which projects outside of plug is corrugated, so as to easily and tightly fit into rubber tubing from gas bag.

I have found that pouring a little sweet oil into chamber, through opening in plug into chamber, in a measure prevents the liability to clogging, as the oil lubricates the sides of opening and facilitates its being readily blown out by pressure from the gas bag.

RECTAL INSTRUMENTS.

FIG.									
*4147	Philip S. Wales Soft Rubber Rectal Bougies, Nos. 3 and 4, each	\$	1	15					
*4147	" " " " " " " " 5 and 6, "		1	50					
*4147	" " " " " " " " 7 and 8, "		2	00					
*4147	" " " " " " " " 9 and 10, "		2	25					
*4147	" " " " " " " " 11 and 12, "		2	75					

The price of Bougies quoted above refers to the style shown in cut No. 7, Figure 4147. The circular cut marked "actual size," will assist greatly in ordering.

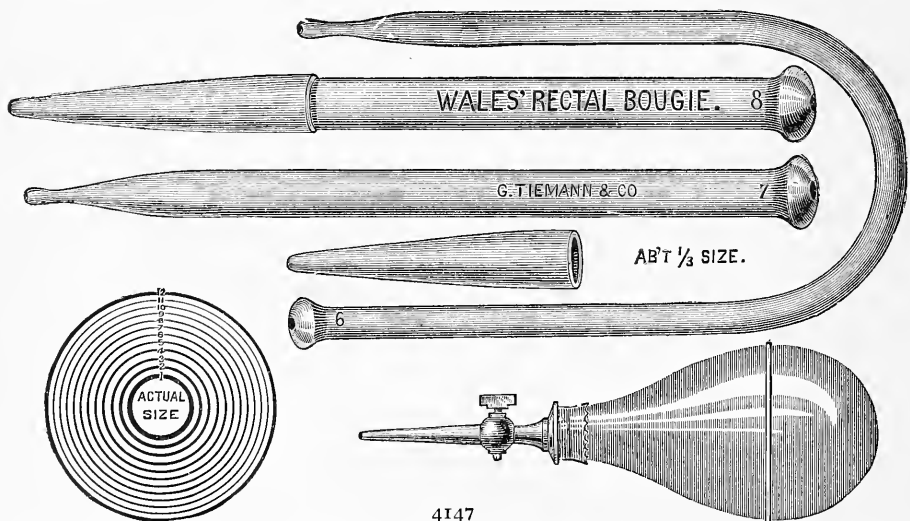
FIG.									
*4148	Sharp & Smith's Hard Rubber Pile Pipe, small.....	\$	1	25					
4149	" " " " " " " " large.....		1	50					
4150	" " " " " " " Ointment, per bottle.....		50						
4151	Seeley's " " " " " " Pipe.....		1	50					
4152	" " " " " " " Ointment, per bottle.....		50						

STRICTURE OF THE RECTUM.

BY PHILIP S. WALES, M. D., Washington, D. C., Surgeon-Gen. U. S. N.

* * * With the view of obviating all possible objections to mechanical dilatation, I devised, for the first time, in 1876, rectal bougies made of *pure gum* (not, as heretofore, of gummed cloth webbing, or other materials), of exceeding flexibility, smoothness and varying in size. A conduit runs through the center, and terminates in the point of the bougie, for the purpose of commanding a stream of water that might be required at any moment to facilitate the introduction of the instrument. The points of the bougies are made in various shapes, spherical, conical, and olivary, with a view of meeting the necessities of special cases. The surface is perfectly polished, which, by reducing friction, increases the facility of introduction, and eliminates the unpleasant sensation of dragging caused by a rough instrument.

The method of introducing the bougie is simple. The patient, after the bowels have been cleaned out by injection, is placed, reclining on his left side,



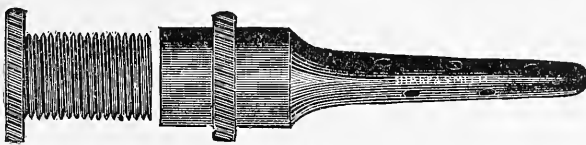
upon an ordinary operating table, the thighs flexed, and the buttocks just overhanging its lower edge. The smallest sized instrument likely to pass the stricture

is smeared with grease, its point inserted into the anus, and gently pushed onward in the following manner: The right hand grasping the bougie close to the anus, the whole perineum is pressed upward, which will advance the point of the instrument; the left hand now steadies it, while the right is slid downward for a lower hold, the perineum, of course settling with it; the bougie is again pushed forward in the same manner until the obstruction is passed. I have occasionally found that this manœuver may be greatly facilitated by sinking the fingers of the left hand deep into the left iliac region, and drawing upward, as though an effort was being made, so to speak, to stretch out the sigmoid flexure, while pressure is made at the same time upon the bougie in the manner described. Another practical point of prime importance is to employ a stream of water, as warm as can be comfortably borne, propelling it through the conduit of the instrument, whenever its point is arrested from any cause. The water, flowing from the distal aperture, will distend the bowel, efface its folds, and break down any hardened feces which may exist, obstructing the ascent of the bougie. An assistant may manage the syringe, throwing in the water in such quantities as may be needed, while the operator is engaged with the bougie. It must be borne in mind, however, that no great volume should be used at once, otherwise the bowel will be excited to energetic contraction, and compel the instrument to be withdrawn before it has been properly lodged. In preliminary trials, the bougie may be permitted to remain two or three minutes, and afterward, when greater tolerance is established, a longer stay may be allowed. I rarely exceed five minutes in any case, even when the patient makes no complaint of irritation or pain. After several introductions of one size of a bougie, say number seven or eight, the next largest may be taken, and so on until the stricture has been sufficiently dilated.

The application of the instrument may be repeated twice or thrice a week, according to circumstances, such as the irritability of the rectum, temperament of the individual, and inter-current attacks of diarrhoea or other trouble. Twice a week, in my experience, suffices in most cases; a fortunate issue, if attainable, can only be brought about by patient and prolonged treatment.

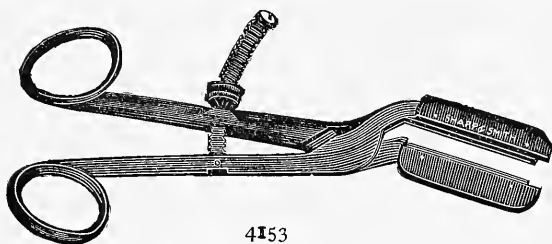
Rudeness or violence inflicted with a view of hastening the case, can effect nothing but harm, and may jeopardize the life of the patient. If the instruments be hastily thrust into the bowel it may be perforated, especially in those cases in which inflammatory softening or ulceration exists; or if it be too large, the rectal mucous membrane may be ruptured, giving rise to smart hemorrhage; or the entire wall of the bowel may be ruptured into the peritoneum, an accident that is pretty sure to be followed by peritonitis, with all of its attendant dangers. But these funest consequences are infinitely less liable to follow the use of India rubber bougies than any other sort, for certainly, *a priori*, nothing could furnish a milder, more equable and less dangerous force than these and experience shows this to be the fact.

It often happens that after the most patient devotion to this method of treatment, the bowels do not regain their functions, even after the largest size bougie has been passed with ease. This result is due in part to long continuance of the expanded condition of the bowel above the stricture, by which its muscular walls have been more or less paralyzed.

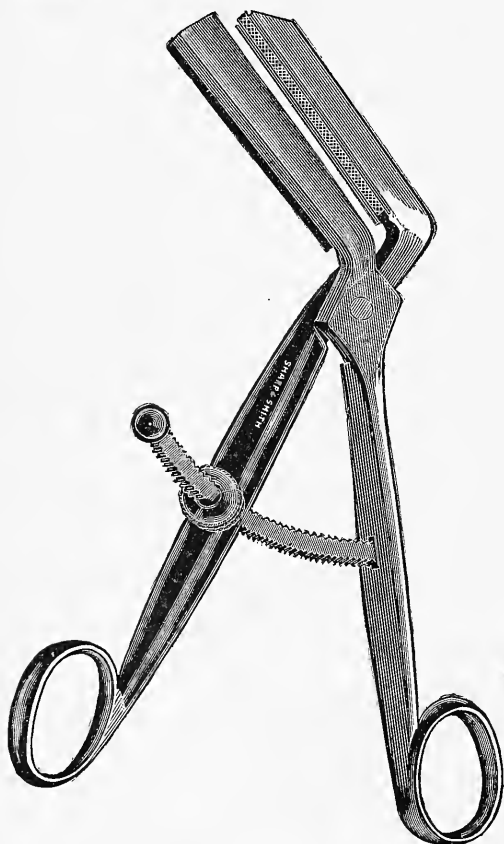


RECTAL INSTRUMENTS—CLAMPS.

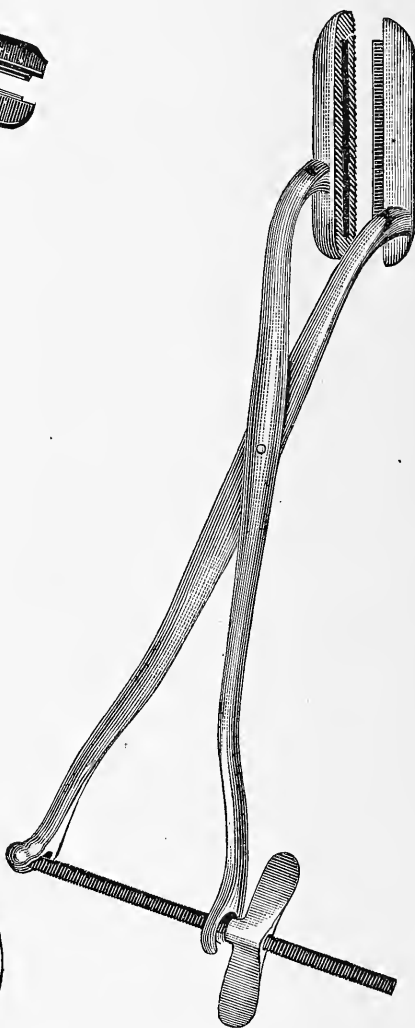
FIG.			
*4153	Smith's Hæmorrhoidal	Clamp.....	\$4 50
*4154	Rockwell's	"	6 50
*4155	Nott's	"	9 00
4156	Amusat's	"	6 00
4157	Jones' Parallel	"	9 00
4158	Langenbeck's	"	3 75



4153



4154

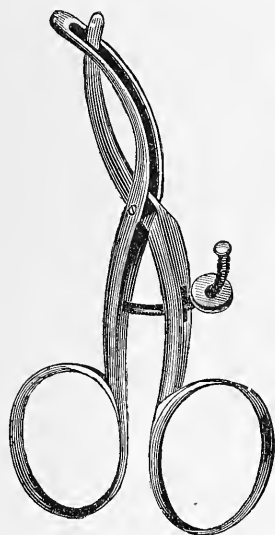


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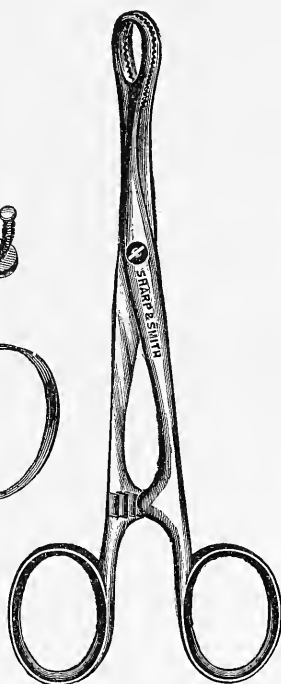
All instruments designated by a * are illustrated.

RECTAL INSTRUMENTS—CLAMPS AND FORCEPS.

FIG.		
4159	Allingham's Hæmorrhoidal Clamp.....	\$ 9 00
4160	Baker Brown's " ".....	9 00
*4161	Bodenhamer's Curvilinear Forceps for facilitating the ligation of Hæmorrhoids.....	3 75
*4162	Ashton's Pile Clamp Forceps.....	2 25
*4163	" " " " " with lock.....	3 25
*4164	Smith's " " " " ".....	3 25
*4165	Allingham's Scissors and Director for Fistula in Ano.....	5 25
*4166	Munde's Rectal Irrigator.....	1 90
4167	Bodenhamer's Rectal Irrigator.....	2 25
4168	Mattson's " ".....	1 00



4161



4164



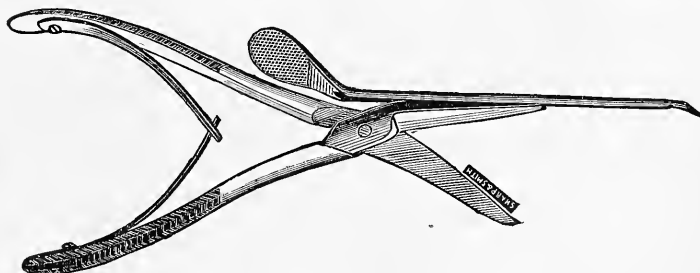
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4162



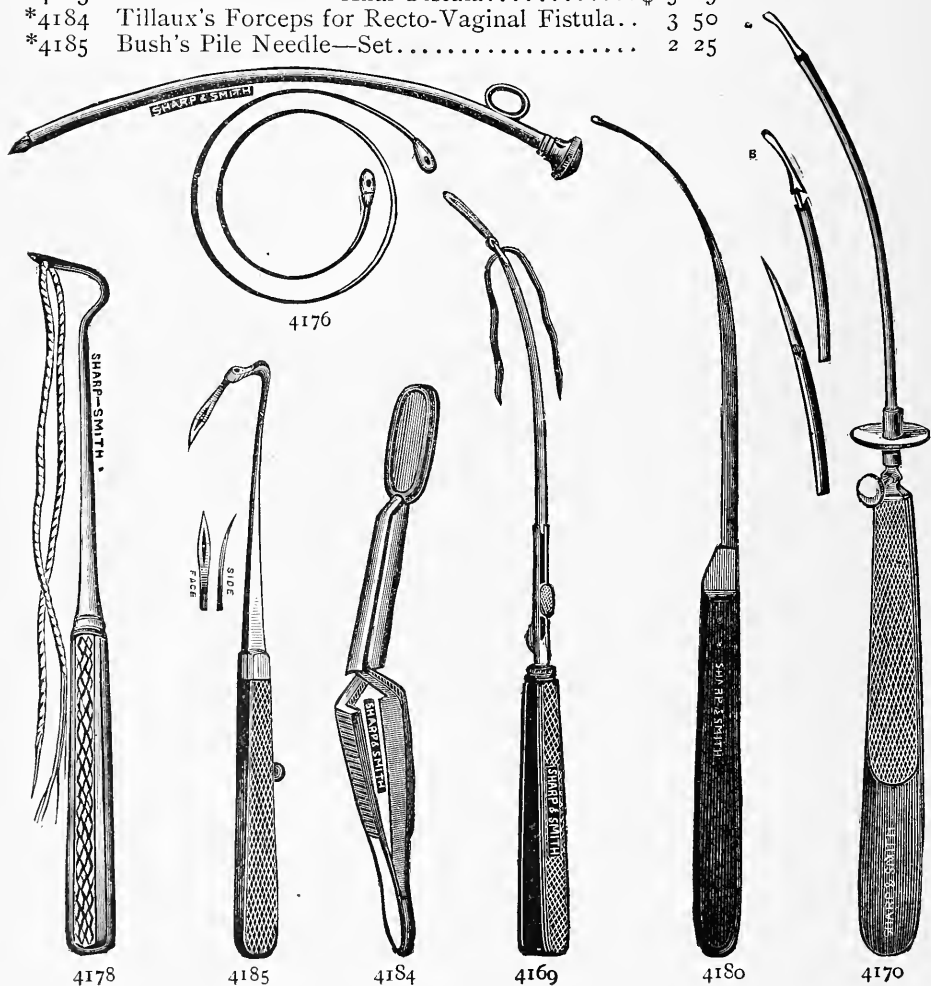
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4165

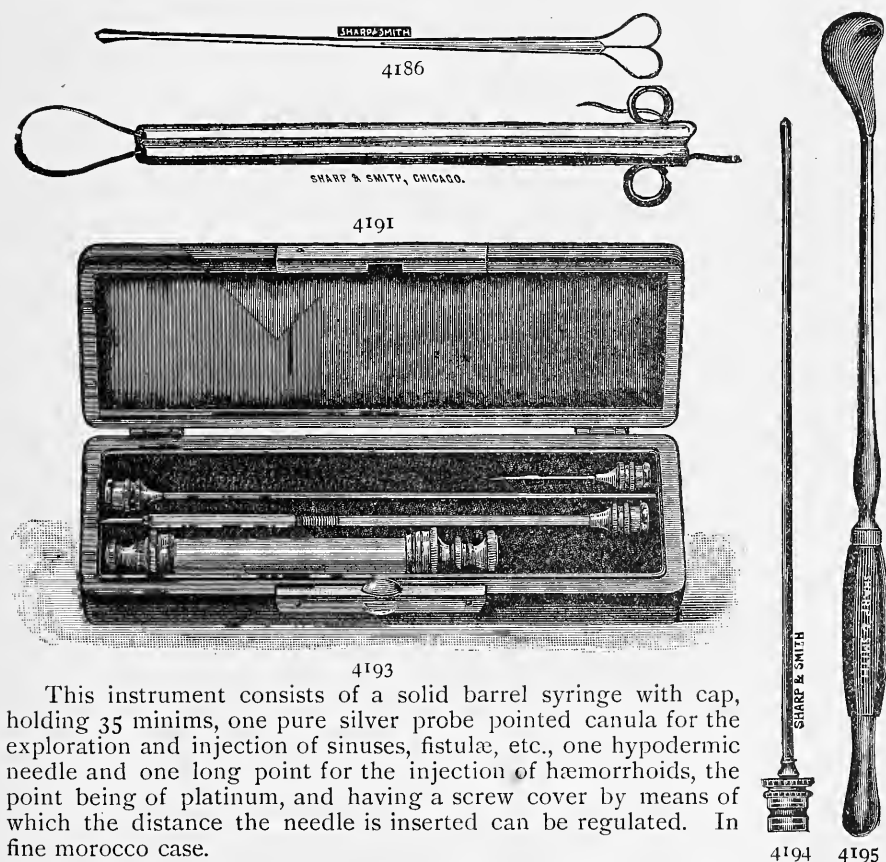
RECTAL INSTRUMENTS.

*4169	Hall's Elastic Ligature Carrier	\$ 3 50
*4170	Allingham's Elastic Ligature Carrier	2 60
4171	Bush's Ligature Carrier	2 40
4172	Lente's " "	1 00
4173	Plain " "	1 00
4174	Ostrum's " "	4 00
4175	Helmuth's " "	2 75
*4176	Gibson's Instrument for the Introduction of the Ligature in Anal Fistula	2 25
4177	Hutchinson's Ligating Needle	3 75
*4178	Whitehead's " "	1 30
4179	Bodenhamer's Knife for Anal Fissure	3 75
*4180	Kelsey's " " " "	1 85
4181	Blandin's " " " "	6 00
4182	Bistoury Caché for Rectal Stricture	5 25
4183	" " " Anal Fistula	\$ 5 25
*4184	Tillaux's Forceps for Recto-Vaginal Fistula ..	3 50
*4185	Bush's Pile Needle—Set	2 25



RECTAL INSTRUMENTS.

FIG.		
*4186	Dr. Larney's Silver Probe and Director for Anal Fistula.....	\$ 1 75
4187	Delicate Silver Probe.....	60
4188	Delicate (pure) Silver Probe.....	85
4189	Flexible Silver Director Probe Point	1 10
4190	Wales' Explorer.....	1 60
*4191	Gooch's Plated Double Canula.....	1 00
*4192	“ Silver “ “	2 00
*4193	Sharp & Smith's Hæmorrhoidal Syringe.....	3 50
4193-A	Adams' Hæmorrhoidal Syringe.....	4 00
*4194	Sharp & Smith's Silver Hæmorrhoidal Needle.....	1 00
*4195	Sharp & Smith's Rectal Curette.....	1 85
4196	Van Buren's Ligator.....	5 00
4197	Rectal Scarificator.....	1 00
4198	“ Insufflators.....	1 50
4199	Bodenhamer's Rectal Exploring Sound, Set of 10.....	7 50
4200	Vertebrated Recto-Colonic Exploring Sound.....	6 00
4201	O'Berne's Rectal Tubes	1 00
4202	English “ “	1 15
4203	Soft Rubber Colon Tubes....	1 15

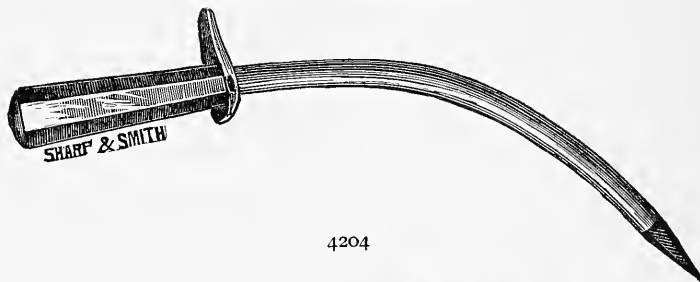


This instrument consists of a solid barrel syringe with cap, holding 35 minims, one pure silver probe pointed canula for the exploration and injection of sinuses, fistulæ, etc., one hypodermic needle and one long point for the injection of hæmorrhoids, the point being of platinum, and having a screw cover by means of which the distance the needle is inserted can be regulated. In fine morocco case.

All instruments designated by a * are illustrated.

RECTAL INSTRUMENTS.

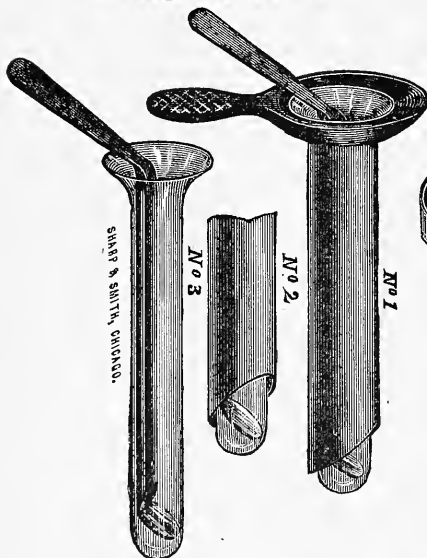
FIG.		
*4204	Curved Rectal Trocar.....	\$1 50
*4205	Buck's " ".....	3 50
4206	Exploring " " (see amputating instruments)	00
*4207	Skene's Hard Rubber Endoscopes.....each	2 00
*4208	Plain " ".....	1 30
*4209	Prolapsus Ani Truss.....	3 75
4210	Rectal Porte Caustique	2 00
4211	Pins for transfixing hæmorrhoidal tumors	20
	Enema Pumps, all prices.	



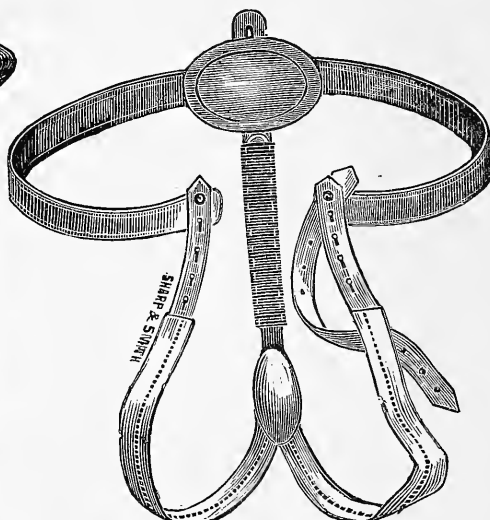
4204



4205



4207



4209



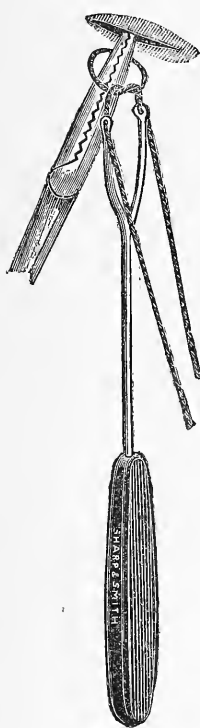
4208

Instruments designated by a * are illustrated.

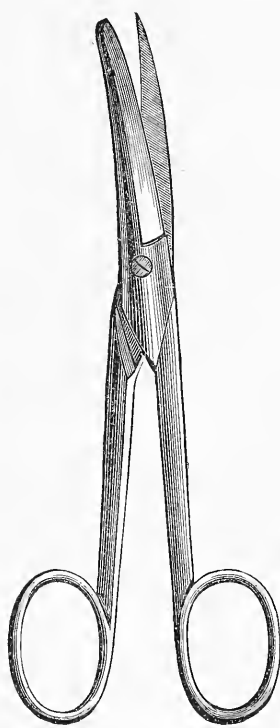
RECTAL INSTRUMENTS.

FIG.

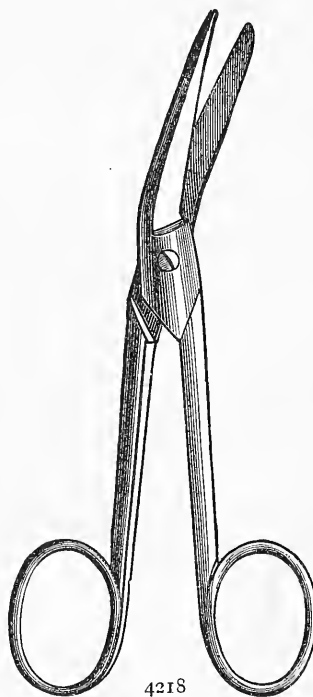
*4212	Dr. Chas. D. Scudder's Knot Tyer.....	\$ 1 50
*4213	Carroll's Knot Tyer.....	1 85
4214	Allingham's Scissors.....	3 75
4215	Saw Tooth ".....	4 50
4216	Bush's Pile ".....	1 15
*4217	Angular ".....	\$1 00 to 2 50
*4218	Curved on flat ".....	1 00 to 3 00
4219	David's ".....	3 00



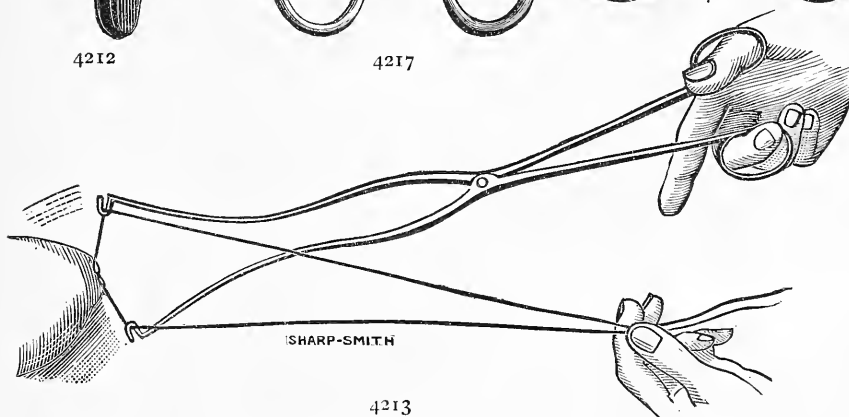
4212



4217



4218

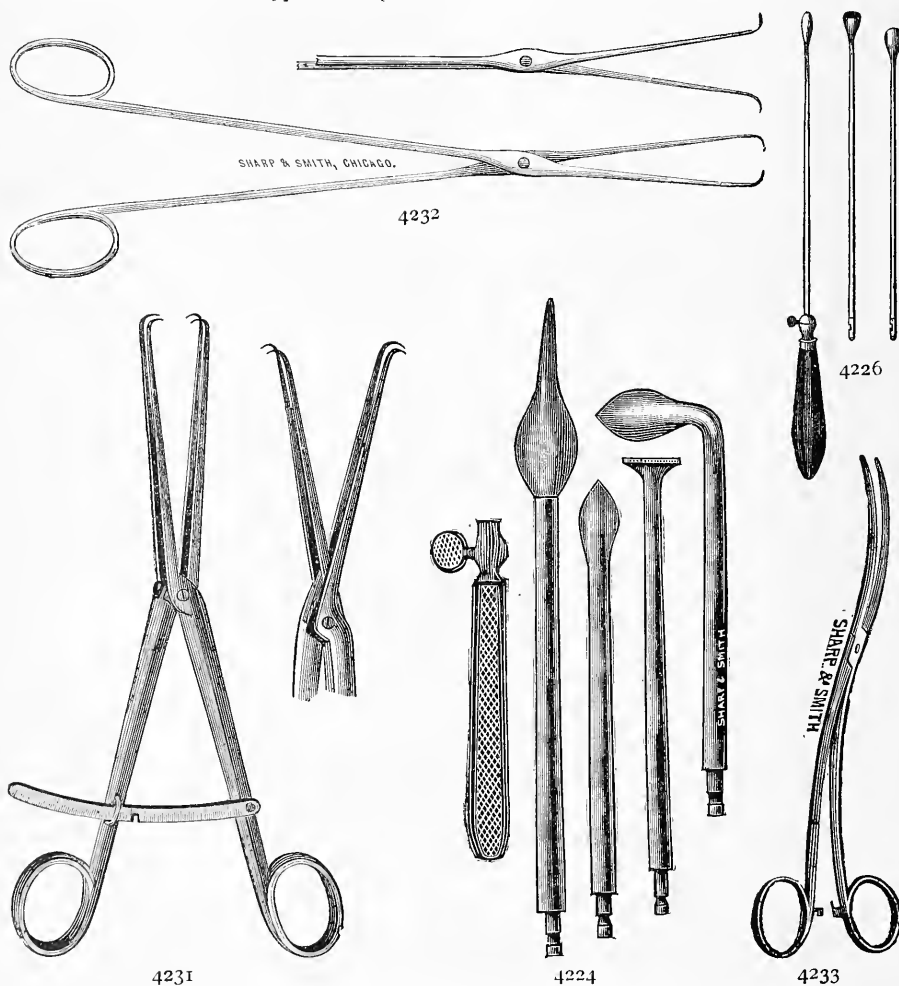


4213

Instruments designated by a * are illustrated.

RECTAL INSTRUMENTS.

FIG.			
4220	Suture Needles, ordinary.....	per doz.,	\$o 60
4221	Self Threading Needles.....	"	1 25
4222	Hagedorn's Needles, flat.....	"	1 25
4223	Silver Wire	each,	20
	For cuts of above, see Amputating Instruments.		
*4224	Cautery Irons, set of 4.....		4 25
4225	" " " 3.....		3 00
*4226	Thomas' Cautery Irons, set of 3.....		3 35
4227	" " " 4.....		4 50
4228	" " " single.....	each,	1 00
4229	" " Handle.....		75
4230	Self Blowing Cautery Iron Lamp.....		3 00
*4231	Byrnes' Tenaculum Forceps, for pulling down the rectum.....		4 50
*4232	Ball's		2 25
	For Other Tenaculum Forceps, see Uterine Instruments.		
*4233	Rectal Dressing Forceps, with catch.....		1 75
4234	" Polypus		4 50
4235	Ashton's Rectal Polypus Forceps.....		2 25



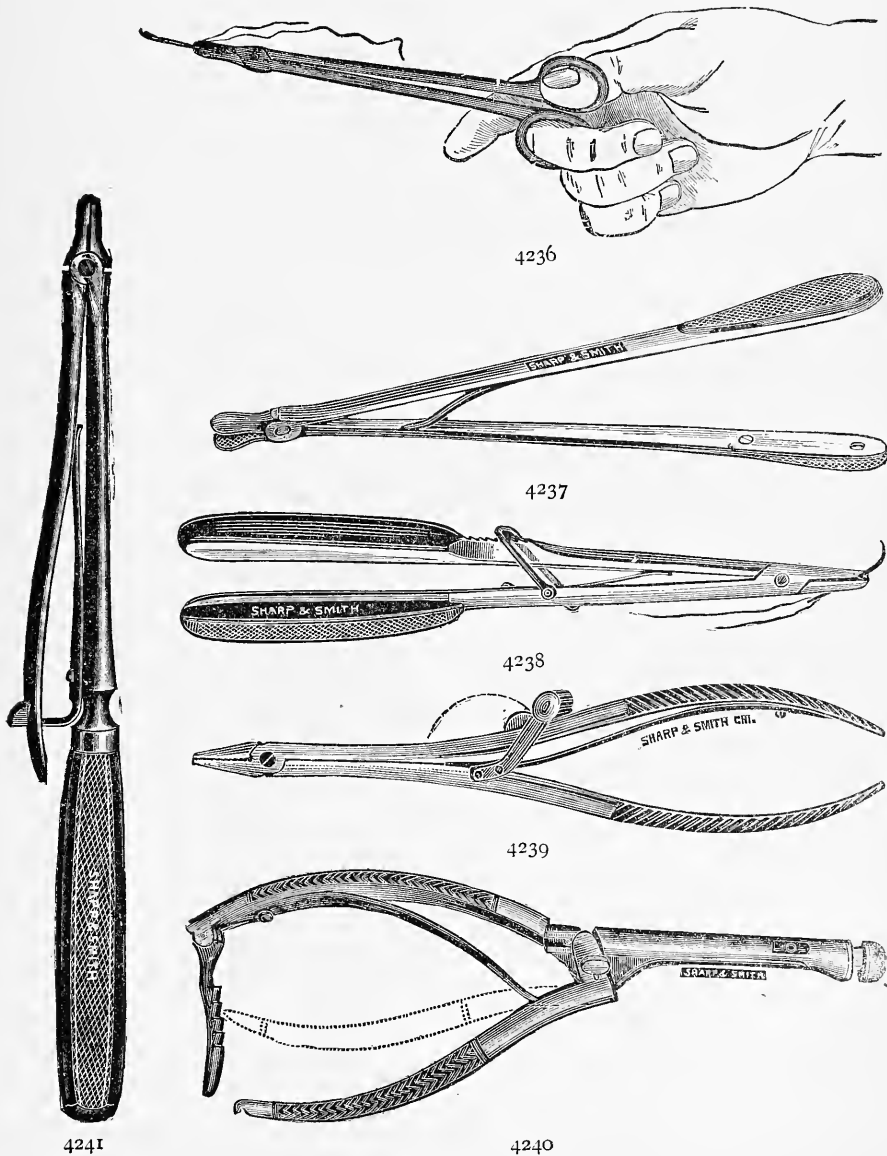
All instruments designated by a * are illustrated.

RECTAL INSTRUMENTS.

A FEW NEEDLE HOLDERS.

FIG.				
*4236	Sims'	Plain Needle Holder	.....	\$1 85
*4237	Emmets'	" "	.....	2 25
*4238	Russian	" "	.....	3 00
*4239	Reiner's	" "	.....	3 00
*4240	Hagedorn's	" "	.....	5 50
*4241	Ethridge's	" "	.....	3 75

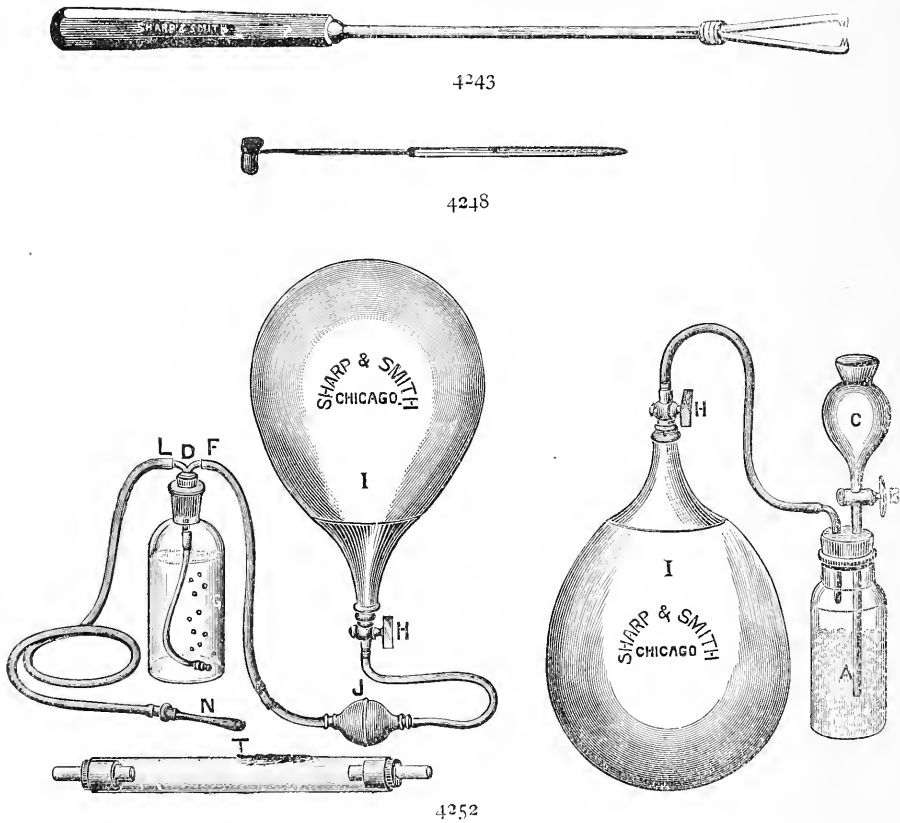
For Other Needle Holders see index.



RECTAL INSTRUMENTS.

FIG.

4242	Rectal Sponge Mop Holder.....	\$ 75
*4243	“ “ Holder.....	75
4244	“ Brush Holder and 1 dozen Brushes.....	1 50
4245	Glass Brushes for making applications.....	each, 20
4246	Hutchinson's Ointment Syringe.....	3 00
4247	“ “ “ 3 pipes	4 50
*4248	Lente's Platina Cup for fusing caustics.....	2 25
4249	Silver Artificial Anus.....	\$5 00 to 10 00
4250	Small H. R. Suppositors.....	40
4251	Large “ “	50
*4252	Sharp & Smith's Gas Apparatus (complete).....	7 50



The Administration of Gaseous Enemata, for Cure of Consumption.

Send for Circular.

PROF. PRATT'S RECTAL INSTRUMENTS.

In introducing to the medical profession the Rectum Speculum, Scissors and Hooks, which I have recently invented, I desire to call attention to some of the peculiar advantages these instruments possess. In the first place, as the most important pathological conditions in a rectum are situated about an inch above the anus, on a level with the upper border of the internal sphincter, none but an expanding valvular instrument will sufficiently smooth out the natural rectal folds so as to render the discovery of these conditions possible.

In the next place the bulbous extremity of the instrument, for the same reason that a fair sized urethral sound passes easier than a small one, can be introduced with the very minimum of discomfort to the parts. This bulb also holds back the expanded part of the rectum above the sphincter and enlarges the field of observation. The Speculum is self-retaining, enabling the operator to work if necessary without assistance, and is so constructed as to secure when so desired sufficient stretching of the sphincter, thus saving the operator much subsequent effort with thumbs or fingers. By partially closing the Speculum it can be revolved at pleasure without withdrawal. Piles, ulcers and fistulæ can also be easier treated through this than through any other devices. Add to these qualifications the remarkably low price of the instrument, and it will be evident that at last a long felt want of the profession is supplied, viz.: a Perfect Rectal Speculum.

The Tenaculum is needed for seizing for removal *papillæ* or other morbid growth, pendulant mucous membrane, etc. The small blunt hook is indispensable in discovering and raising for removal rectal *pockets*. The Scissors are constructed in this peculiar manner so as to remove the hand of the operator from the field of vision.

The original article upon rectal *pockets* and *papillæ* or *fringes*, by Prof. Pratt, also the cut illustrating their situation and manner of detection is appended, as some may still be unfamiliar with them.

Messrs. SHARP & SMITH have made all the above mentioned instruments for me in a very workmanlike manner, and at my request have made the price within the reach of all.

Yours truly,

E. H. PRATT, M. D.,

Central Music Hall, CHICAGO.

RECTAL POCKETS AND FRINGES.

A Paper read before the Illinois State Homœopathic Association, Peoria, in 1885, by PROF. E. H. PRATT, A. M., M. D., LL. D., of the Chicago Homœopathic Medical College.

They are as common as piles; more prolific of mischief than you would believe without a special acquaintance with them, and still they have been hitherto almost unknown to fame, and very much neglected.

Our current literature contains little or no mention of them, and only in a few isolated places in medical lore will you find any indication that they have ever been even discovered; and nowhere, so far as I am aware, are they well described or properly noticed. This paper, therefore, is but an act of justice to a condition which should have received earlier attention, and although in itself but a feeble effort, it is to be hoped that it will inaugurate a line of thought and investigation that will in time place the complaint where it belongs—in the regular index of all standard surgical works.

PROF. PRATT'S RECTAL INSTRUMENTS—Continued.

Your attention is called to the mucous membrane at the upper border of the internal sphincter, just where the enlarged middle third of the rectum is puckered to the smaller limits of the lower third.

Through an expanded trivalve speculum the lower third will appear as a short, straight, smoothly distended canal ending above in a well-defined border, beyond which is seen the plentiful folds of the middle portion crowding into the upper part of the speculum, and completely obstructing a farther view.

This narrow edge is sometimes smooth and unbroken, but sometimes is ornamented with a few thickened prolongations of mucous membrane—cone-shaped, very pointed and sensitive at the apex, which is free—very broad and thick at the attached base. These papillæ vary in number from one to five or six—and in length from a line to one-half inch, and are not unlike in appearance the broken relics of a hymen.

If no one can suggest a better name let us call them a *fringe*. They are always sources of irritation and should be removed. Transfix them one by one with a tenaculum and with a pair of long scissors snip them off at their base. Each one contains a small artery which requires no attention, as the bleeding ceases spontaneously upon the removal of the speculum.

These *papillæ* or *fringes* are not found in every rectum, but are common, and when present should be treated as above. This is the first of the two neglected conditions which it is the object of this paper to introduce.

The second one—the *pockets*—is more important, more unobserved, and consequently more neglected than are the fringes. These pockets are simply small blind canals, from one-eighth of an inch to an inch in depth, and their number varies from one to eight or ten in cases troubled with them. Their mouths are in the same situation at the bases of the papillæ; in fact, there will often be found *two* starting from the base of a papillæ, one on each side, running parallel with each other, but separated always by a partition. Their direction is always toward the anus and they are very superficial, hugging the mucous membrane closely; their caliber is often sufficient to entertain a uterine sound, but they are usually smaller. The bottom of these pockets is usually very sensitive, the patient often flinching, even when partially under ether, as soon as the bent probe touches it. Several times I have entered a pocket with a probe, bent in the shape of a fish-hook, raised it slightly and with a pair of scissors snipped it out. Upon then removing the amputated pocket from the probe, over which it fitted like the finger of a glove, I have carefully turned it inside out, and examined its lining, finding it to resemble ordinary mucous membrane except at the very bottom, where there is usually found a small spot of ulceration. This last fact explains the ease with which, many times, the probe, during an examination of them in situ, will often pierce the bottom of a pocket and passing readily through the loose areolar tissue under the mucous membrane, will burrow to the anus itself. The operation of snipping them out is so simple and slight that ether is unnecessary, except in very nervous patients, or in those who would be poor subjects for the local application of cocaine. Do not confound these pockets with blind, internal fistulæ, as they are not the product of abscesses, are never tortuous, never inclose the sphincter, and their lining is mucous membrane. They doubtless frequently result in fistulæ, but cannot properly be so considered in the state in which we are considering them.

So irritations of the rectum, be they ulcerations, hæmorrhoids, erosions, prolapsus, pockets or fringes, can write their story of distress upon the feet, limbs, back, bladder, uterus, urethra, kidneys, liver, stomach, heart, head, face or coats of the bloodvessels, as suits their pleasure. I do not regard the exam-

PROF. PRATT'S RECTAL INSTRUMENTS—Continued.

ination of a case of insomnia, neuralgia, nervous prostration, general debility or functional derangement of any one or all the organs of the body as thorough or complete, without a careful exploration of the lower two or three inches of the rectum. The conditions of hæmorrhoids, ulcerations, etc., are so fully understood and appreciated, that it seems best in this paper to neglect consideration of them, so that the pockets and fringes could have a little of the attention so long denied them.

Permit for illustration the brief mention of two cases:

1. A bright little lady came clear from Denver, Col., to be relieved of severe congestive headaches occurring once or twice a week, and of a long established habit of constipation. Four papillæ were removed and three pockets laid open soon after her arrival, and to my own delight the habit of constipation was entirely removed, and the headaches improved in two weeks' time; and although medicines were given and suppositories were used, from what I have seen accomplished with them in previous cases, I do not believe I am unfair in ascribing the cure to the operations.

The second case is one of the most remarkable it has befallen me to care for. A prominent lawyer of Chicago, a man standing six feet and two inches, and weighing over two hundred pounds, called to be examined for a life insurance. He appeared well in every particular, except feeling tired, sleeping poorly, and having a heart beat of 94 strokes per minute. He used neither liquor nor tobacco. He was informed that the rate of his heart's action would exclude him from present insurance, and he was referred to his family physician to reduce the rapidity of his pulse. He crowded me so hard to explain the condition that at last I began more thoroughly to investigate his case. The cold hands and feet and the pulse rate pointed to a weakened state of the sympathetic nerve. His mouth and teeth were all right. His tongue showed no signs of distress in stomach or liver—the urine was normal. An exploration of the rectum was then begun, with a view, chiefly, of ascertaining the size of the prostate gland, as he positively denied any rectal irritation or irregularity. Upon the mere introduction of the finger, the man became ashy pale. The prostate was normal, but the speculum revealed a few superficial abrasions of the mucous membrane and a few pockets and papillæ. The spots were carefully touched with 95° carbolic acid and a cotton tampon inserted. Everybody has seen the white *alæ nasi* and mouth caused by pin worms, or other rectal troubles. Imagine this same dead white painted over the whole face and the entire skin surface beaded with drops of cold perspiration, and you will have a fair image of the appearance of the patient as he wearily arose from the operating chair. Suppositories and medicines continued for a space of three weeks failed to reduce the pulse, but improved the color of the rectal mucous membrane, and prepared him for more radical work. Under ether two papillæ were cut off and four pockets slit up and the sphincter thoroughly paralyzed.

In twenty-four hours a report from the attending physician in whose care he was left (as he lived out of town too far for me to care for him) pleased me by recording his temperature as only 99° and his pulse at *sixty* beats per minute. A few days of rest sufficed to heal the wounds and start him well on the road to recovery. His pulse rebounded to 68 or 70, but no farther, when quiet—and he resumed his work with more vigor and life than he had known for years. I have not fairly painted his weakened condition when the case was undertaken. For several years he had been able to work but four or five hours a day, and he spent three months of last summer in Germany in search of health, which he did not succeed in finding, and he was just about abandoning his business for some out of door employment, supposing his case was one of brain-fag, which only prolonged rest and change of occupation would cure.

AFTER TREATMENT OF RECTAL OPERATIONS.

BY E. H. PRATT, M. D., CHICAGO.

From The Medical Era.

The after-treatment in rectal troubles has necessitated the invention of two new instruments, and at the request of the MEDICAL ERA and many friends, I will briefly explain their use.

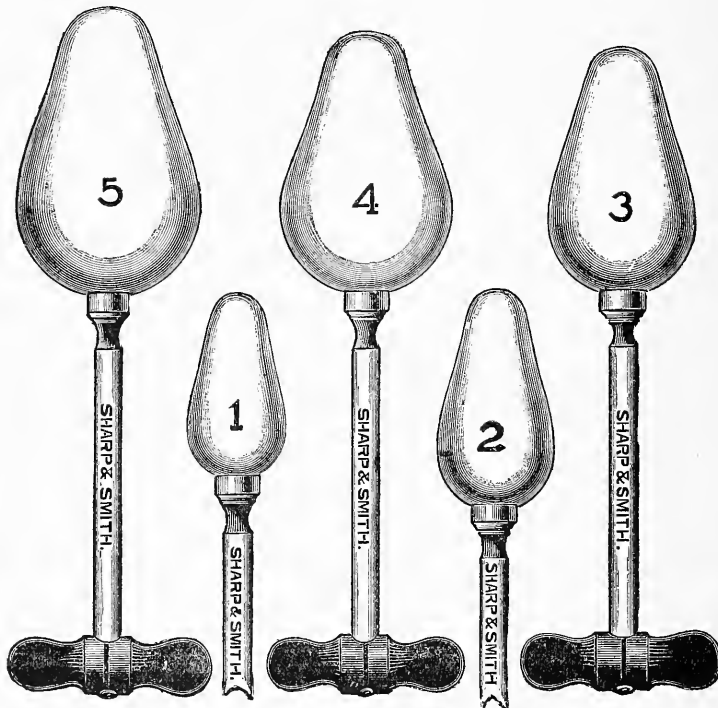


Fig. 4253.—PRATT'S RECTAL DILATORS.

The first invention is a set of graded Rectal Dilators, five in number, and varying in diameter from $\frac{1}{4}$ an inch to 2 inches. I regard them as almost indispensable for fine rectal work. If any one thinks he can operate on a case at one sitting and dismiss it as cured without subsequent attention, he is doomed to repeated disappointments. Occasional experiences of this happy nature will sometimes occur, but they are exceedingly rare.

After all forms of operations upon the rectum, particularly those involving extensive destruction of mucous membrane, no matter how thoroughly the sphincters may be stretched at the time, they are sure to regain their tone before the soreness disappears, and again contract to such a degree as to bring on a temporary return of old reflex troubles, or, possibly, of new ones. Dilatation at this time is essential to success, and since the bowel is still sensitive, fingers and thumbs and speculums cause such discomfort as to be decidedly objectionable; besides bruising the parts into a soreness that may take much time to remove.

It is the same objection which I have previously raised against all valvular uterine dilators, and which induced me to add the larger sizes of female sounds to the small numbers in use.

DR. PRATT'S RECTAL INSTRUMENTS.

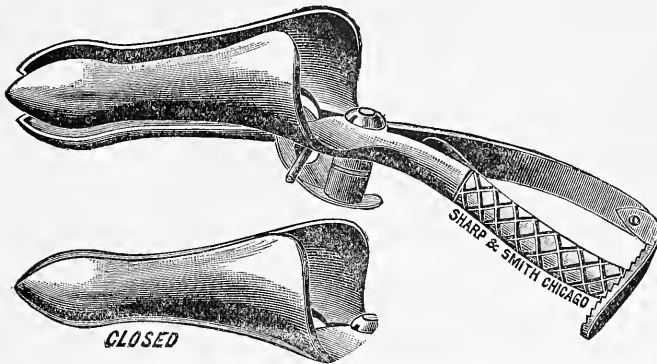


Fig. 4254.—PRATT'S SPECULUM.

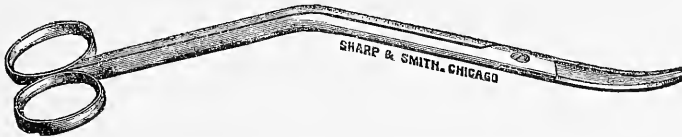


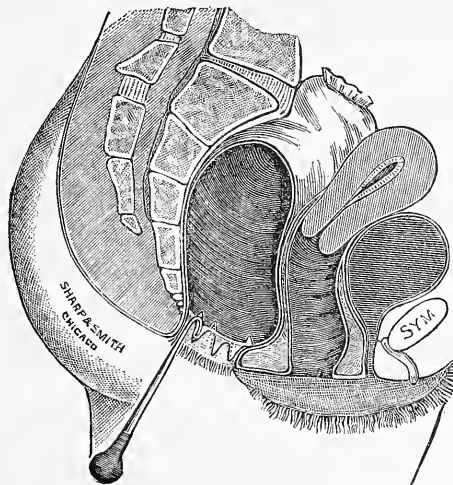
Fig. 4256.—PRATT'S SCISSORS.



Fig. 4257.—PRATT'S TENACULUM.



Fig. 4258.—PRATT'S BLUNT HOOK.



PROF. PRATT'S RECTAL INSTRUMENTS—Continued.

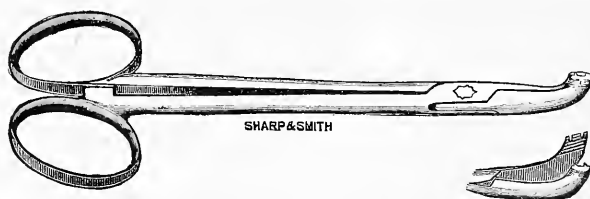


Fig. 4259—PRATT'S ARTERY FORCEPS.

To escape this dilemma, I have invented these round, polished, graded pear-shaped Rectal Dilators.

I am glad to chronicle their success. They give so little pain, they dilate so evenly and thoroughly; they bruise so little, that they relieve soreness instead of causing it.

In badly constipated cases, where the operation has not immediately relieved the condition—if the three smaller sizes be intrusted to the patient, by passing them at bed time—twice a week, the proper dilatation will not only be secured permanently, but the regularity of the bowels easily established.

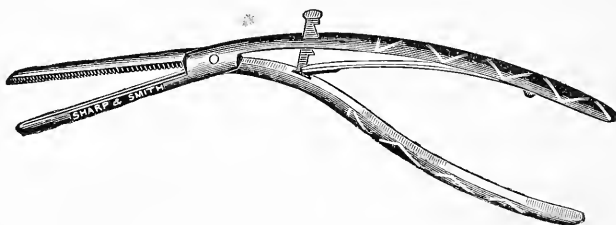
In such cases, they should be completely inserted, allowed to remain a short time, and then withdrawn during an expulsive effort.

The two larger sizes are useful in arresting hemorrhage after operations.

The manner of using them is to dip the size selected in vaseline, and introduce it carefully and slowly during an expulsive effort.

The second invention is an improved Artery Forceps, suggested to me by Dr. C. Manville Pratt, of Towanda, Pa.

This cut will sufficiently explain their advantages. Straight Forceps are so awkward in rectal work, and the grasp of the ordinary one is so poor on the slippery surface of the bowel, that I am grateful to Dr. Pratt for his suggestion. This modification leaves little to be desired in the way of Rectal Artery Forceps.



4261

PRICES OF PROF. PRATT'S INSTRUMENTS.

FIG.			
*4253	Pratt's Rectal Dilators, sizes 1 to 5.....	each	\$1 25
*4254	" " Speculum, triblade	"	3 50
4255	" " " two blade.....	"	3 50
*4256	" " Scissors	"	3 00
*4257	" " Tenaculum	"	75
*4258	" " Blunt Hook	"	75
*4259	" " Artery Forceps	"	1 75
4260	" " " long	"	2 50
*4261	" " " small.....	"	2 50
4262	" " " large	"	9 00
4263	" Stem Pessaries, latest improved.	"	1 00
*4264	" Latest Bivalve Rectal Speculum ..	"	3 50
*4265	" " " Dilator.....	"	1 50

See following page for last two items.

We Carry in Stock a Complete Line

===== | OF | =====

DR. PRATT'S RECTAL INSTRUMENTS,

AND MAKE IMMEDIATELY NEW PATTERNS AS THEY ARE WANTED.

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See Supplement for other

INSTRUMENTS OF DR. PRATT'S.

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Doctors desiring new Instruments manufactured,
can have patterns, etc., made here by skillful
Designers, and manufactured in our Fac-
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Makers in the country.

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and we can promptly fill your order.

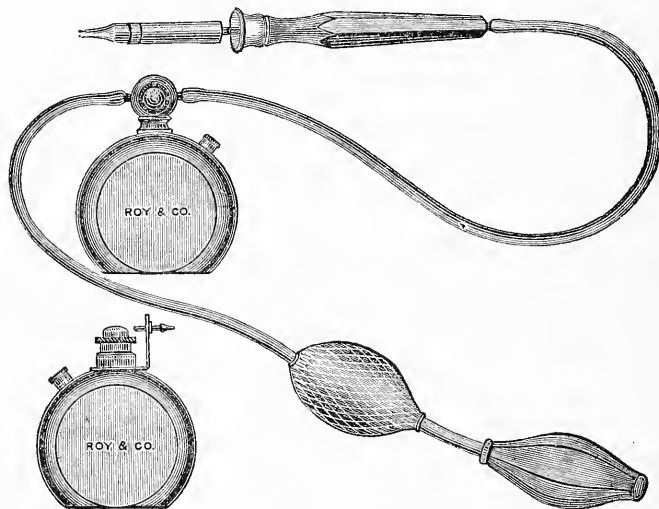
THERMO-CAUTERY.

FIG.

*4268	Pacquelin's Cautery, complete, in neat Morocco Case, Fig. 4269, with two Cautery Points.....	\$30 50
*4269	Showing Cautery, in Case, as described in Fig. 4268.	
*4270	No. 4—Button Cautery Point } These two Tips are the ones referred to as be- }	10 00
*4271	No. 5—Knife " " } longing to complete Apparatus, Fig. 4268. }	10 00
*4272	No. 6—Curved Knife, Cautery Point.....	10 00
*4273	No. 7—Small " ".....	10 00
*4274	No. 8—Curved Small Knife, ".....	10 00
*4275	No. 9—Cylindro Conical ".....	10 00
*4276	No. 10—Sharp Point Cautery.....	10 00
*4277	No. 11—Very Fine Knife, Cautery Point.....	10 00
*4278	No. 12—Needle Tip, ".....	10 00
*4279	No. 13—Cautery Scissors, Straight or Curved.....	18 00

PARTS OF THE CAUTERY.

4280	Metal Reservoir.....	\$ 3 00
4281	Glass ".....	2 50
4282	Metal Lamp.....	2 50
4283	Glass ".....	2 00
4284	Canulated Handle, with lengthened Tube.....	2 00
4285	Double Bulb Blow Apparatus.....	3 00



4268

DR. PACQUELIN'S CAUTERY (THERMO-CAUTERY.)

Pacquelin's Cautery is an instrument for the production of permanent and controllable heat. and with slight radiation, it can be raised to the highest temperature. It passes through liquids and organic tissues without losing its activity.

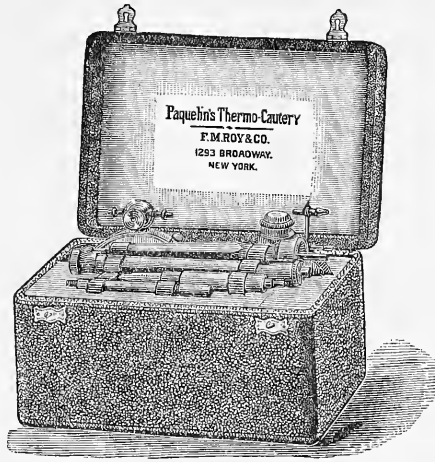
This admirable instrument (without rival) is adapted to all the needs of actual cautery, owing to the variety of its forms. It occupies a privileged rank among the principal instruments indispensable in surgery, where the use of cautery by fire is indicated.

The use of this instrument is desired from the fact that when platinum, as well as several other metals, slightly heated, is brought in contact with hydrocarbon vapors, it gradually becomes incandescent, and retains its heat as long as the vapors are supplied.

It is combined as follows: A combustion chamber of platinum, a canulated ebony handle, a thick rubber tube, a reservoir for the hydrocarbon, a double bulb apparatus for supplying air. A spirit lamp, with blow pipe, is furnished with the above.

NOTICE.—The above described parts are put up in a neat Morocco Case, four inches high, seven inches long, and five inches wide.

THERMO-CAUTERY.



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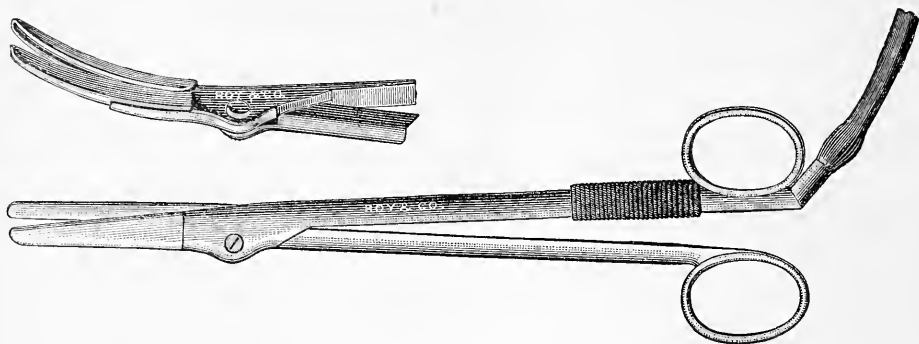


4275



4276

THERMO-CAUTERY.



4279—(see page 698).

ALLEN'S UNIVERSAL SURGICAL PUMP.

WRITE FOR PRICES.



Fig. 2.—Showing the Pump attached to a Chair.

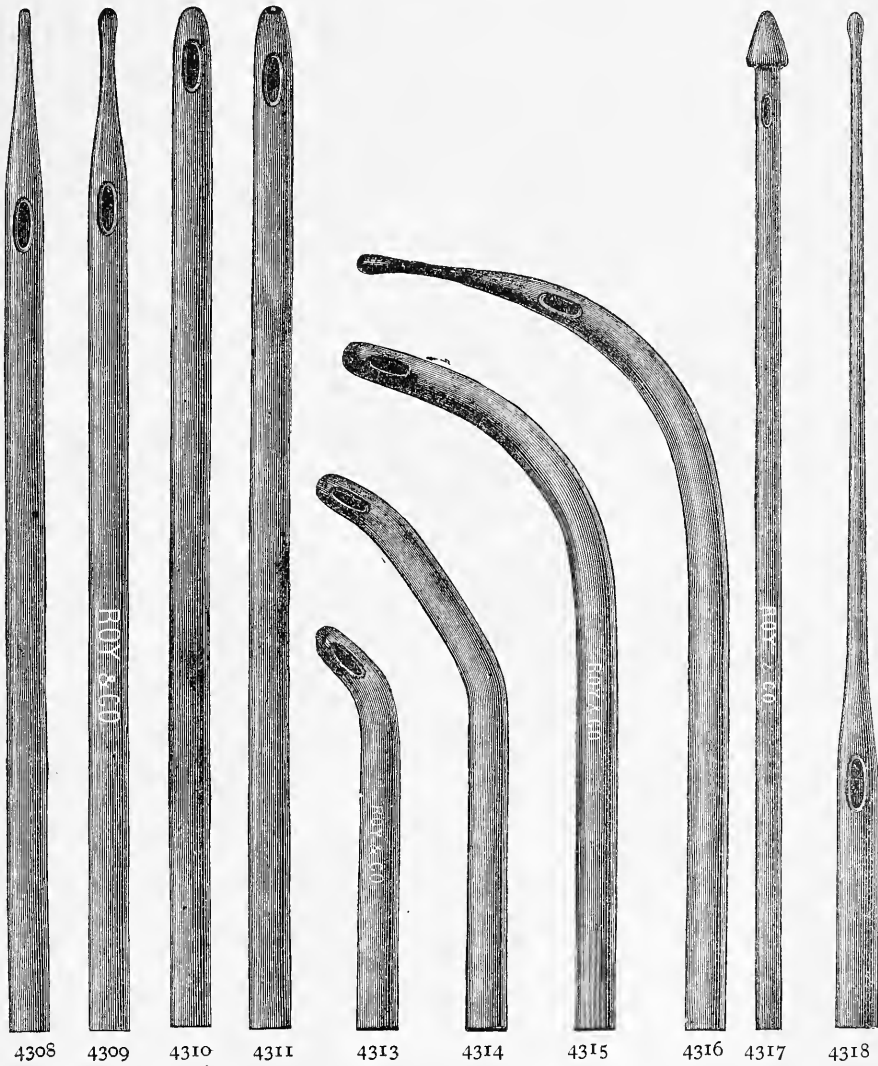
INSTRUMENTS FOR MALE URETHRA, BLADDER AND GENITALS—CATHETERS.

FIG.						
4300	English Web Catheters, sizes 1 to 12.....	each	\$0 15—doz.	\$ 1 25		
4301	" (Double) Web Catheters, sizes 1 to 12.....	"	0 25—	" 2 00		
4302	" " " " " 12 to 16	each		35		
4303	" " " " " 17 and 18	"		50		
4304	" (Best) " " " Olive Tip, sizes 1 to 12.....	"		50		
4305	" " " " " " 12 to 18.....	"		75		
4306	" " " " " Conical, " 1 to 12.....	"		50		
4307	" " " " " " 12 to 18.....	"		75		

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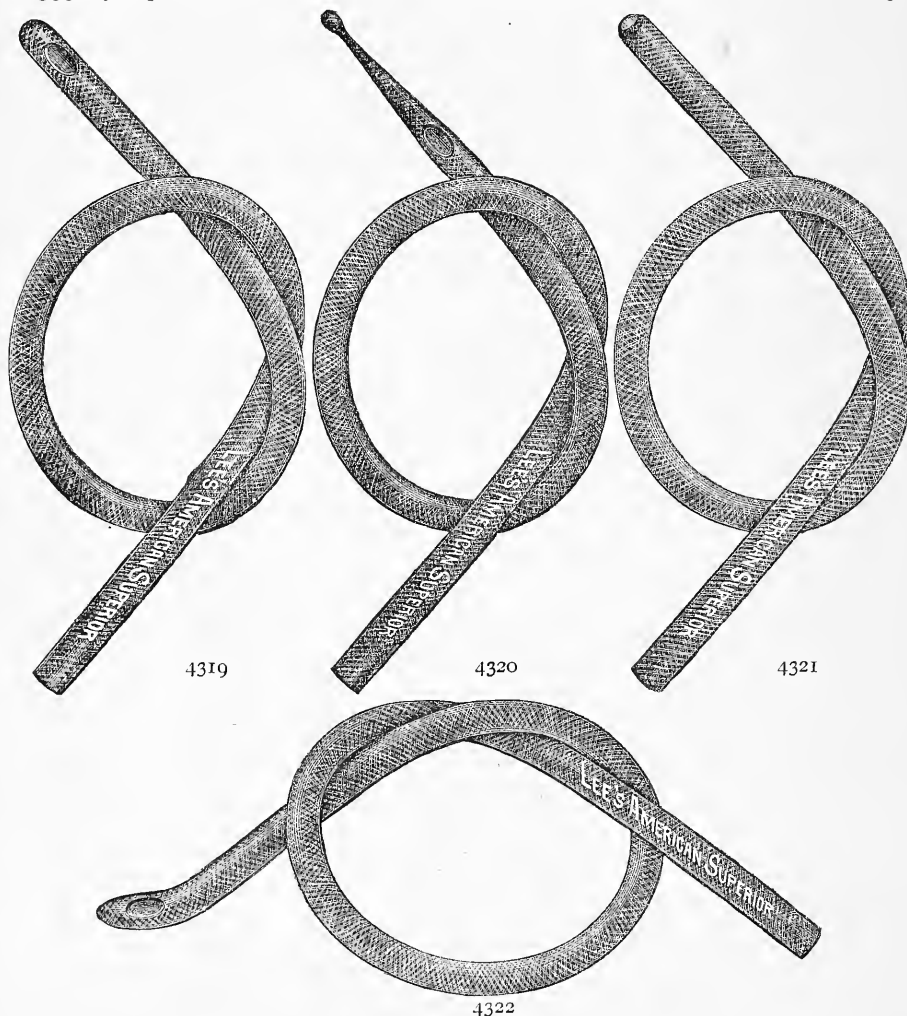
INSTRUMENTS FOR MALE URETHRA, BLADDER AND GENITALS—CATHETERS.

FIG.					
*4308	French Web Catheters,	Conical, all sizes	each,	\$o 50
*4309	" "	Olive,	.....	"	50
*4310	" "	Cylindrical, all sizes	.....	"	50
*4311	" "	" " hole in end and side	.....	"	50
*4312	" "	Prostatic	.....	"	60
*4313	" "	Mercier's Elbow	.....	"	65
*4314	" "	" " Double Curve	.....	"	85
*4315	" "	Curved Cylindrical	.....	"	60
*4316	" "	" Olive Tip	.....	"	60
*4317	" "	Bulbous	.....	"	60
*4318	" "	with long Bougie Tip	.....	"	75



URETHRAL INSTRUMENTS—CATHETERS.

FIG.						
* 4319	Lee's Cylindrical half silk Catheter	.....	\$	50		
* 4320	" Olive Point " " "	.....		60		
* 4321	" Open End " " "	.....		75		
* 4322	" Mercier's " " "	.....		75		
4323	Silk Web Cylindrical Catheters	.....		75		
4324	" " Olive " "	.....		85		
4325	" " Mercier's " "	.....	I	25		
* 4326	Belfast Linen Web Catheters, Olive Tip	.....		50		
* 4327	" " " " Cylindrical	.....		50		
* 4328	" " " " Mercier's	.....		75		
* 4329	" " " " Olive Metal Tip	.....	I	00		
* 4330	" " " " Cylindrical Metal Tip	.....		75		
* 4331	" " " " Mercier's " "	.....	I	25		
* 4332	" " " " Conical " "	.....	I	00		
* 4333	Jacques' Soft Rubber Catheter	.....		50		



URETHRAL INSTRUMENTS—CATHETERS.

A NEW CATHETER TIP.

Antiseptic—Non-breakable.

Heretofore in all Flexible Catheters, whether with woven or cut eyes, at least one-quarter of the body of the tube is displaced where the eye occurs, and the Catheter is consequently made weakest at the very part where the most strength is required. This general defect has been overcome in the Metal Eye Belfast Linen Catheters, by ingeniously attaching a properly constructed German Silver Eye Piece, which is firmly woven inside the tip of the Catheter, so that it not only thoroughly protects the weak part about the eye, but makes the head of the Catheter perfectly solid and antiseptic.

In the Olive and Conical patterns, additional stability is given to the slender points by means of a catgut inside, which extends from the metal eye to the extreme tip, and makes the points solid and firm.



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4327



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4330



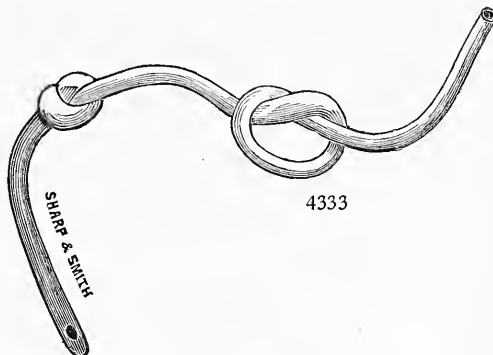
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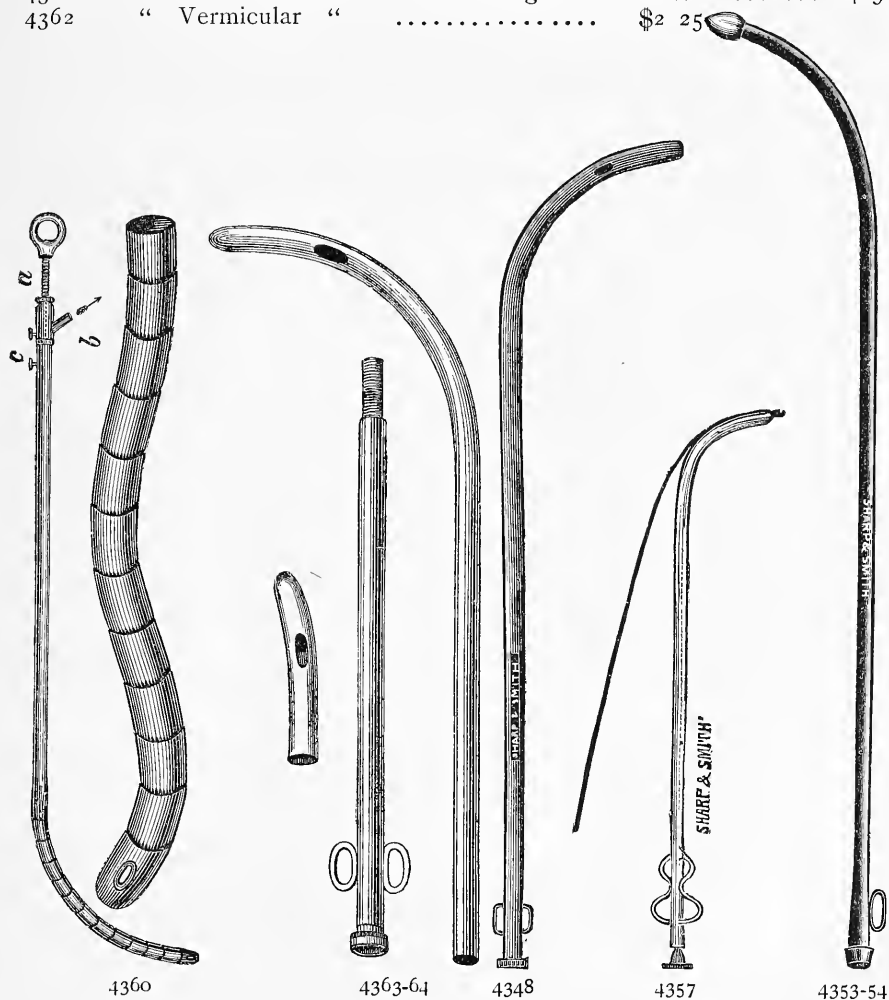


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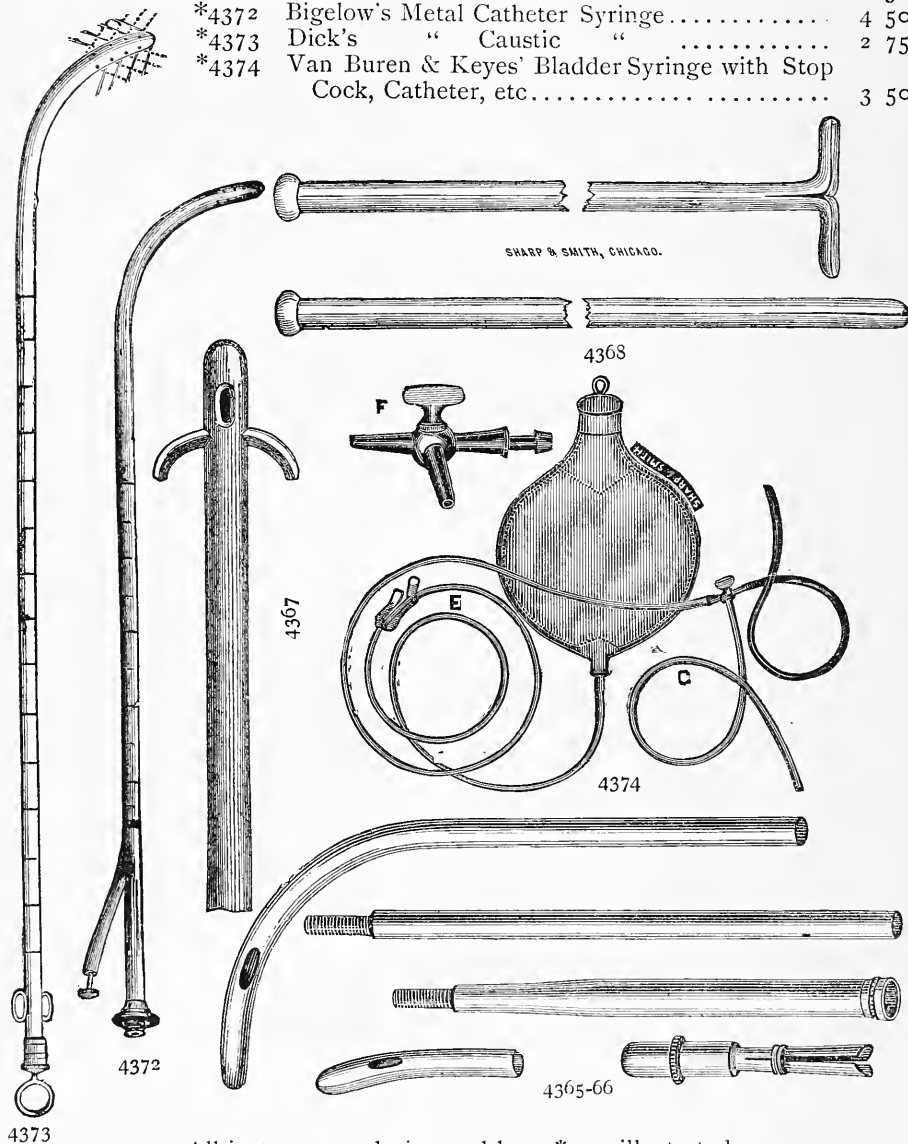
URETHRAL INSTRUMENTS—CATHETERS.

FIG.		
4347	Flexible Metal Catheter.....	\$ 50
*4348	Sterling Silver Male Catheter.....	1 50
4349	Plated " "	75
4350	Pure Silver " "	2 00
4351	Plated Prostatic Male "	1 00
4352	Silver " " "	2 00
*4353	Barthelow's Silver "	1 50
*4354	" Plated "	75
4355	Gross' Spiral " Silver.....	2 50
4356	" " " Plated.....	1 50
*4357	Goulay's Tunneled " and guide.....	2 25
4358	Cowan's Vertebrated "	6 50
4359	Squires' Vertebrated "	4 50
*4360	" (mod. by Caro), Vertebrated Catheter.....	4 50
4361	Warren's Door Catheter for evacuating the bladder... ..	4 50
4362	" Vermicular "	\$2 25



URETHRAL INSTRUMENTS—CATHETERS.

FIG.							
*4363	Male and Female	Jointed	Silver	Catheter.....	\$	2	00
*4364	"	"	Plated	"		1	00
*4365	"	"	Silver	" Parker's.....		3	00
*4366	"	"	Plated	"		2	00
*4367	Holt's Self Retaining		"			1	00
*4368	Dowell's		"			3	75
4369	Metal Cooling		"			2	00
4370	Wyeth's Cocaine		"			1	00
4371	Otis' Urethral Haemostatic Tube		"			50	
*4372	Bigelow's Metal Catheter		Syringe.....			4	50
*4373	Dick's	"	Caustic	"		2	75
*4374	Van Buren & Keyes' Bladder Syringe with Stop		Cock, Catheter, etc.....			3	50

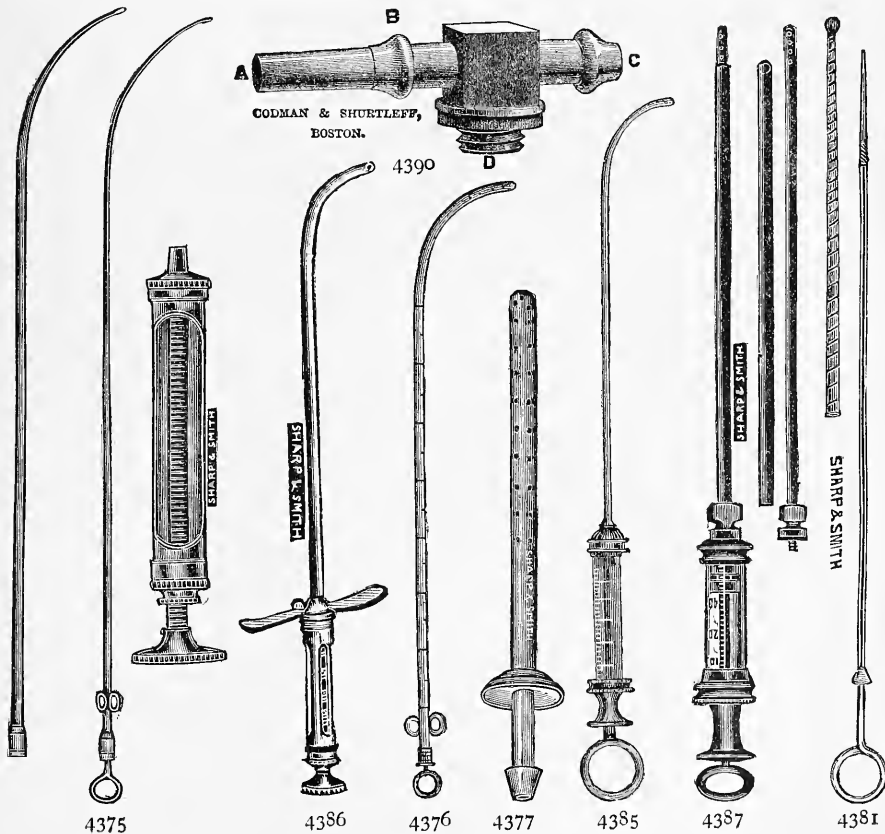


All instruments designated by a * are illustrated.

URETHRAL INSTRUMENTS—SYRINGES.

FIG.

*4375	Otis' Catheter Syringe.....	\$4 50
*4376	Parker's " " (Silver).....	2 65
*4377	Otis' " " Nozzle.....	1 15
4378	Keyes' " " Guide.....	60
4379	Gouley's " " 12 inch.....each	40
4380	" " " 24 "	60
*4381	Otis' " "	75
4382	Taylor's Urethral Syringe.....	2 80
4383	Ultzman' " "	3 00
4384	Bumstead's " " Glass Barrel.....	2 00
*4385	Braun's " "	1 75
*4386	Keyes' (Ultzman's) Urethral Syringe.....	4 50
*4387	Spicker's " "	2 00
*4388	Bryce's " " and Applicator.....	4 25
4389	Thornton Parker's " Tube	35
*4390	Hosmer's T. for washing out the bladder.....	75
*4391	Van Buren & Keyes' Stop Cock Metal.....	1 75
*4392	" " " Hard Rubber.....	1 50
*4393	" " " Bladder Syringe.....	1 75
4394	" " " Hot Water Bag for diseased prostate....	3 75
*4395	Peck's Double End Bladder Syringe.....	2 00

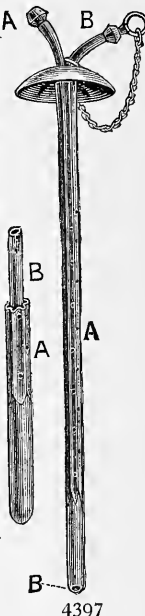


BRYCE'S URETHRAL APPLICATOR AND SYRINGE.

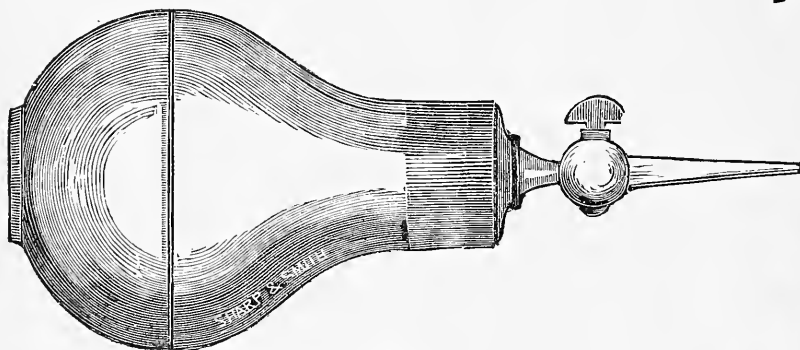


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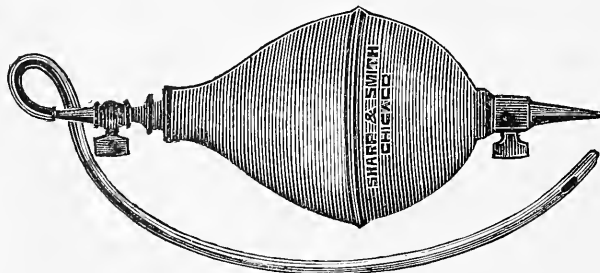
This instrument, known as "Bryce's Urethral Applicator A and Syringe," consists of a silver cylindrical tube, perfectly straight, ten inches long, with a number of perforations near the vesical end; within this tube slides another tube of equal length, provided with a large fenestrum to correspond with the perforations in the outer tube. An air-tight plunger fits accurately in this inner tube. An ointment may be placed in this tube, and the whole encased in the outer one. This instrument is so arranged that when it is carried down to any desired spot, by turning the inner tube and forcing a little gauge pin into a slot in the outer tube, the fenestrum is brought opposite the perforations in the outer tube. By gently forcing the piston rod down, an ointment may thus be applied in any quantity to any particular spot or spots within the urethral tract. The instrument may be used equally as well for a syringe. It is the best one I have ever used for medicating the urethra. The surgeon can with positive certainty know exactly where he is applying his remedies, and has perfect control of such agents, medicating only such spots as he may choose, applying large or small quantities as the case may demand. Any surgeon who is familiar with the anatomy of the parts, knows that a perfectly straight instrument can be readily passed into the bladder.



4397



4393



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4391-92

URETHRAL INSTRUMENTS—SYRINGES.

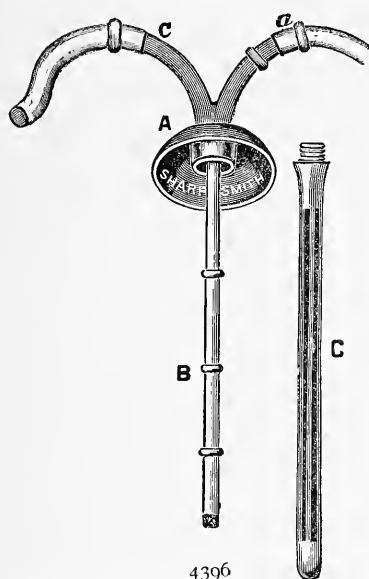
FIG.		
*4396	Zuelzer's Katharaphor.....	\$ 3 00
*4397	Wigmore's Gonorrhœa Tube.....	1 85

ZUELZER'S KATHARAPHOR FOR THE URETHRA.

[From Medical News.]

The above named instrument, designed by Professor Zuelzer, is well adapted to cleanse a diseased urethra of infectious bodies and inflammatory effusions. Its chief use is in cases of acute gonorrhœa, but it also finds application in the chronic state, with accompanying erosions, rents, broad superficial loss of substance and ulceration or croupous infiltration of the mucous membrane.

The customary method of using injections, suppositories and ointments, is undoubtedly deficient in not providing for a preliminary thorough washing of the affected tract, and the want of care and exactness, which lies in applying medicaments over an unremoved layer of inflammatory products, needs hardly to be mentioned as incompatible with our ideas of antiseptic treatment.



By the use of the Katharaphor this indication is fulfilled, and the ingenious and complete manner of construction has led to the belief that it is deserving of notice in America. The accompanying illustrations may serve to explain the instrument:

The bell A is of a size to cover the glans penis. The bent tube *a*, distinguished from its fellow *c* by an elevated ring, is connected with an irrigator of water or antiseptic solution, and terminates in the straight tube B. The latter has a length of $4\frac{1}{2}$ – $5\frac{1}{2}$ inches, and ends with a free opening. The outer tube C, encasing B, is screwed into the under surface of the bell and communicates thereby with the outflow tube *c*. The outer tube is of silver or German silver, its lower end is closed and has a tip like a catheter's. Its sides are perforated by four long broad slits. The three elevations on B prevent the outer tube C from bending inward.

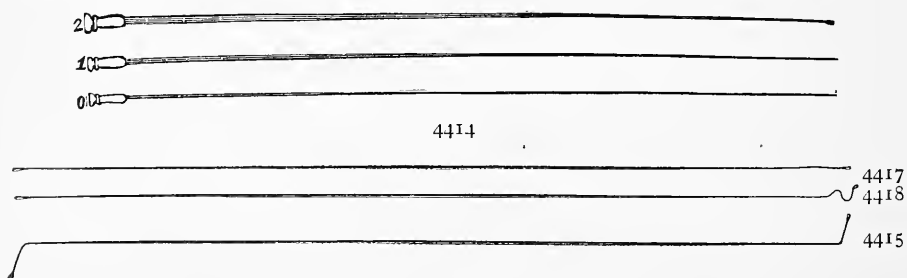
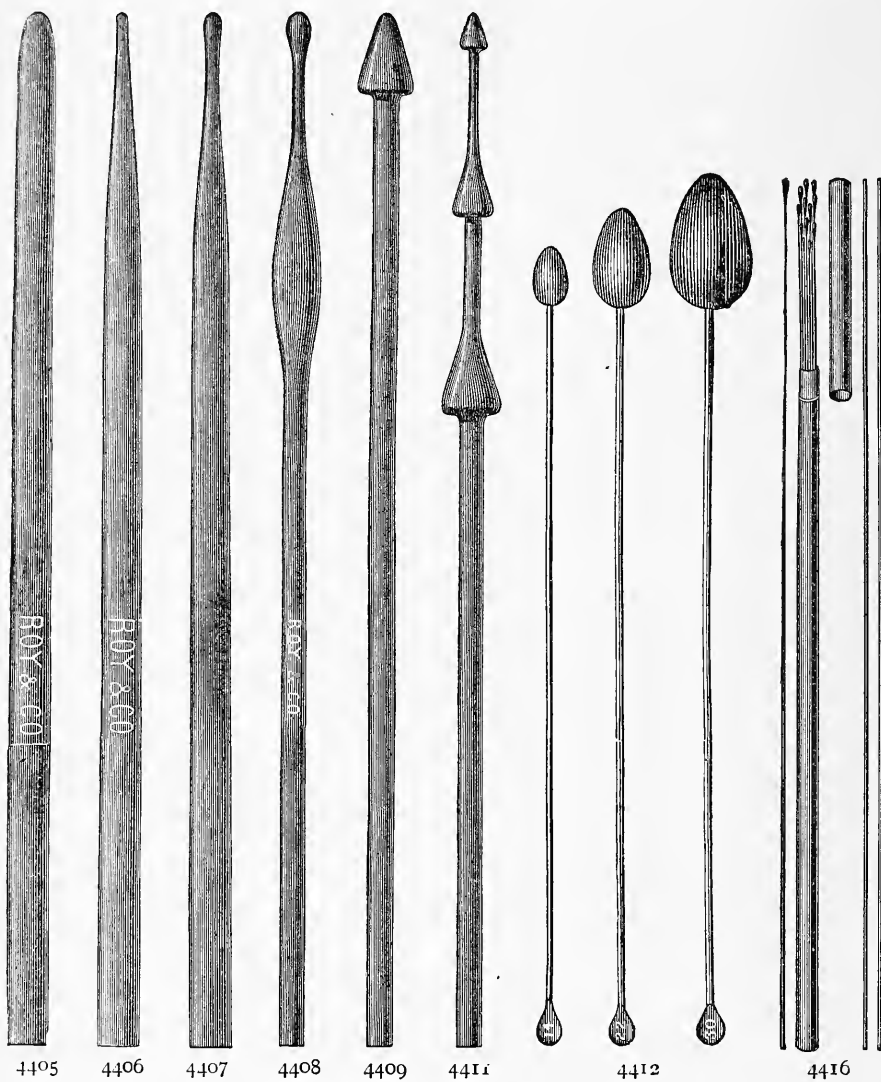
The current of fluid in A B escapes at the open extremity. Through the slits in C it bathes the urethral walls, and the collected washings returning inward again are discharged through *c*. In the treatment of acute gonorrhœa in Zuelzer's clinic, the patient's urethra is irrigated once daily. The liquid is either hot or cold, the latter state being generally preferred on account of the comfortable sensations it produces. The washings are collected in glass vessels until the fluid no longer shows turbidity. By compressing the rubber tube attached to *c* the outflow is arrested. This is done at short intervals and tends to remove particles that would not otherwise come away.

An irrigation lasts from fifteen to forty minutes. It may, of course, when possible, be frequently repeated. Prof. Zuelzer usually combines the use of medicated suppositories, but not with any decided influence on the duration of the purulent discharge. This, as a rule, entirely disappears in from six to eight days, even when pure water is the irrigant.

LOUIS KOLIPINSKI, M. D.

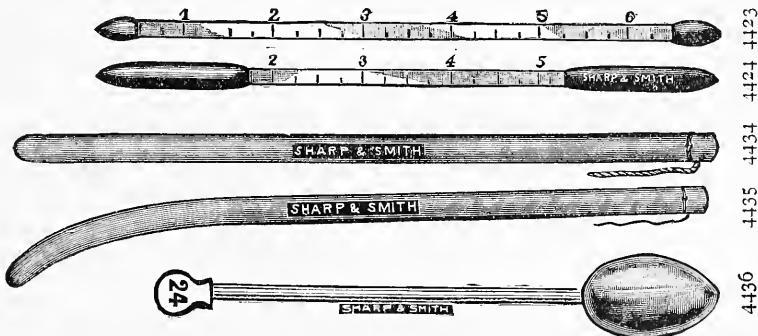
BERLIN, Aug. 6, 1887.

URETHRAL INSTRUMENTS—BOUGIES AND GUIDES.



URETHRAL INSTRUMENTS—BOUGIES.

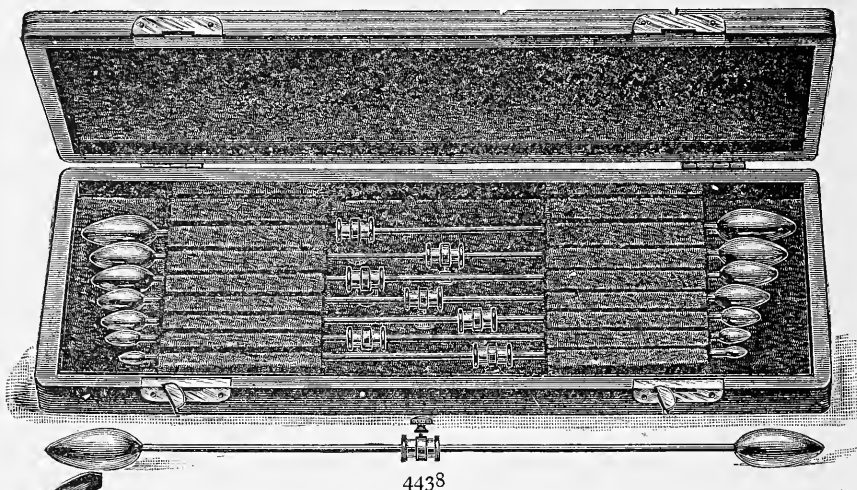
FIG.						
4398	English Web Bougies (Common), sizes 1 to 12.....	\$	15			
4399	" " " " " 1 to 12.....per doz.	1	25			
4400	" " " " " 13 to 16.....each.		25			
4401	" " " " " 17 and 18.....		30			
4402	" " " (Fine) " 1 to 12.....		50			
4403	" " " " " 13 to 16.....		65			
4404	" " " " " 17 and 18.....		90			
*4405	French " " Cylindrical.....		50			
*4406	" " " Conical.....		50			
*4407	" " " Olive Tip.....		50			
*4408	" " " Bellied.....		60			
*4409	" " " Aboulé.....		75			
*4410	" " " Double Aboulé.....	1	00			
*4411	" " " Triple ".....	1	25			
4412	Otis' Bougies, Aboulé, Nos. 6 to 40, French scale.....		35			
4413	English Filiform Bougies.....		50			
*4414	French " ".....		50			
*4415	Whalebone " ".....		30			
*4416	" " " 1 doz. in box.....per box.	3	50			
*4417	Olive Tip Whalebone Filiform Bougies.....each.		35			
*4418	Goulay's " ".....		40			
4419	Banks' " ".....		95			
4420	Eldridge's Pathfinder.....	26	25			
4421	Modified Eldridge's Pathfinder.....	2	75			
4422	Warren's Exploring Sound.....	1	85			
*4423	Weisse's Bougie Aboulé, with non-flexible, ruled staff.....		75			
*4424	" Urethral Sound, for treating Strictures of the Male Urethra exteriorly to the triangular ligament.....		75			
4425	Belfast Linen Bougies, Olive Tip.....each.		50			
4426	" " " Cylindrical.....		50			
4427	Sea Tangle ".....		75			
4428	Silk Web ".....	1	00			
*4429	Papier Mache and Catheter Box (see Fig. 4416).....		75			
4430	Casper's Rubber, Gonorrhœal Bougie.....	2	00			
4431	Hunter's Filamentous Wedges.....each.		60			
4432	Wax Bougies.....		30			
4433	Flexible Metal Bougies.....		50			
*4434	Straight Elm ".....per doz.	3	00			
*4435	Curved " ".....	3	00			
*4436	Piffard's Bulbous Bougies.....each.		35			



URETHRAL INSTRUMENTS—BOUGIES AND SOUNDS.

FIG.		
4437	Fowler's modification of Otis' Bulbous Bougies each.....	\$ 75
*4438	“ “ “ “ (in case), Set.....	7 50
4439	Leather Rolls for Fowler's Bougies, to hold from 16 to 34 Bougies.....	2 00
SOUNDS.		
*4440	Wier's Short Curve Steel Sound.....	1 15
*4441	Piffard's Fossil Sound.....	75
*4442	“ Meatometer.....	85

DR. FOWLER'S CASE OF OTIS BOUGIES.

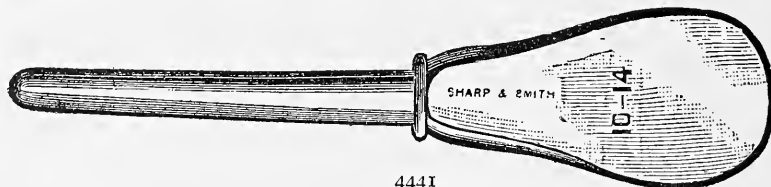


This set of Bulbous Bougies, for locating strictures of the male urethra, was devised by Dr. Geo. R. Fowler, as a companion to Prof. Weisse's Pocket case of Sounds. This set consists of 16 bulbs numbered according to the French Scale, giving every even number from 10 to 40.

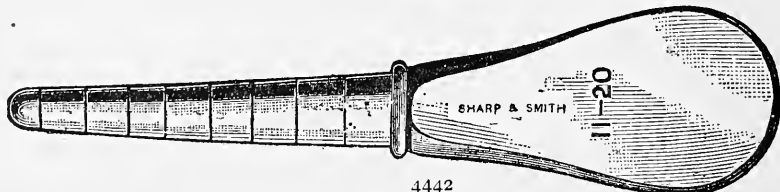
Owing to the small difference between the sizes in this scale, every alternate size is all that is usually thought necessary. The slide attached to the rods serves as a place on which the sizes of the bulbs are stamped, and as an accurate and simple means of measuring the depth of the stricture, by sliding it up to the meatus and fastening it with a turn of the screw, while the bulb is engaged in the stricture.

Owing to the rare occurrence of strictures below the straight portion of the urethra, the rigidity of the stems in these instruments, will very seldom become an objection, and their compactness and arrangement will be found a great convenience in carrying, and in use.

The entire set is contained in a morocco case $3\frac{1}{2}$ inch x $9\frac{3}{8}$, and less than one inch thick.



4441



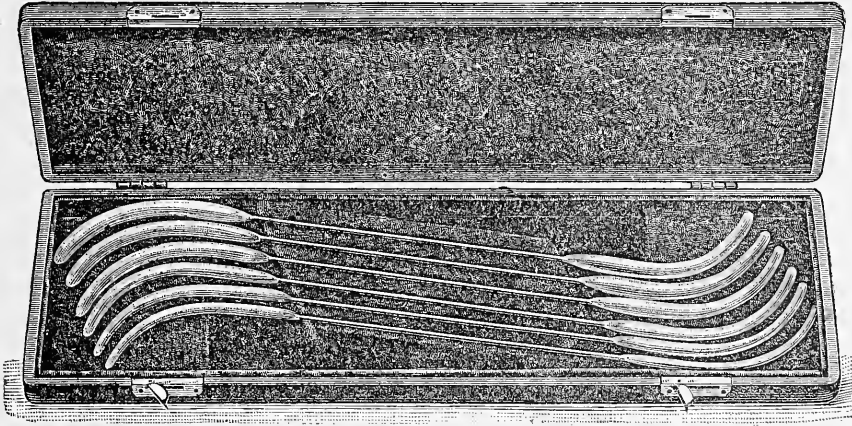
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URETHRAL INSTRUMENTS—SOUNDS.

FIG.			
*4443	Fowler's set of	12 sizes curved Sounds in Case.....	\$7 00
*4444	Weisse's "	12 " straight " "	5 00

DR. FOWLER'S SET OF SOUNDS.

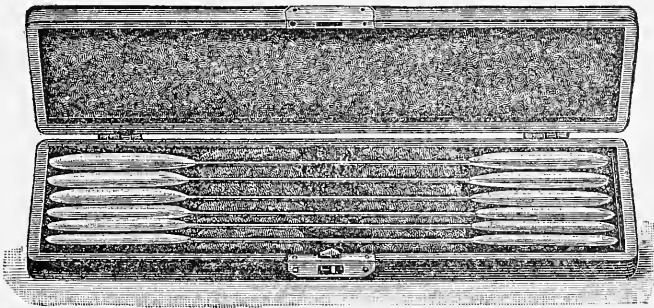


4443

This set of Sounds comprises twelve sizes from No. 9 to No. 20 American Gauge, and while they are as effective as the old style of Sounds, the weight, bulk and expense are reduced nearly one-half.

They have the regular Van Buren curve and taper, and are put in Morocco cases $12\frac{1}{2}$ inches long, 4 inches wide, and 1 inch deep. Weight complete, 20 ounces.

DR. WEISSE'S POCKET SET OF SOUNDS.



4444

This set of Sounds, devised by Dr. Weisse of the University Medical College, New York, comprises twelve sizes, from No. 9 to No. 20 American Gauge. They are well adapted to all purposes for which Sounds are used in the straight portion of the urethra; as almost nine-tenths of the treatment requiring Sounds is confined to this portion of the canal, they will nearly fulfil all the requirements. The absurdity of introducing a curved instrument into the bladder for the purpose of dilating any part of the straight urethra is apparent.

The Sounds are Nickel Plated, and put up in neat Morocco Case, measuring only $8\frac{1}{2}$ inches long, $2\frac{5}{8}$ inches wide, and $\frac{7}{8}$ inch deep, so it can be readily carried in the pocket.

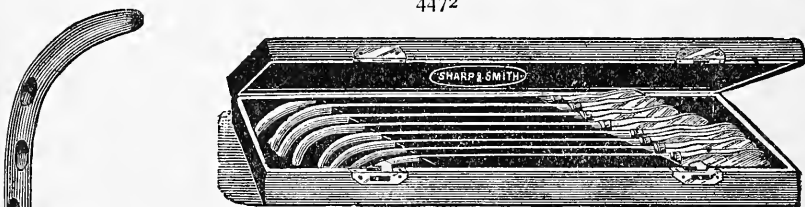
Case and Sounds only weigh ten ounces.

URETHRAL INSTRUMENTS—SOUNDS and EXPLORERS.

FIG.		
4445	Van Buren's Steel Sounds, finely Nickel plated, sizes 1 to 20 English Scale	each \$ 75
4446	Van Buren's Steel Sounds, Sizes 21 to 25 English Scale	1 00
* 4447	" Set of 8 Steel Sounds, in case	8 00
* 4448	" Steel Ointment Sounds	each 1 50
4449	Morocco Covered, Velvet Lined Cases, for 2 Sounds	2 50
4450	" " " " " " 8 "	3 00
4451	" " " " " " 12 "	4 25
4452	" " " " " " 16 "	5 50
* 4453	Mastin's (mobile) Olive Point, Steel Sound	1 85



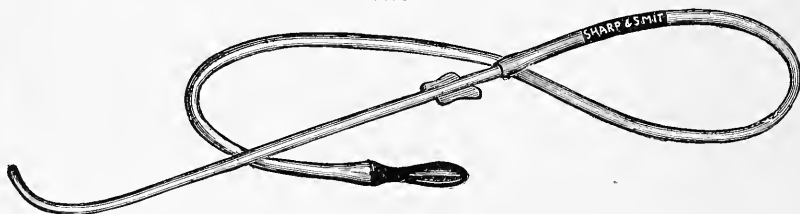
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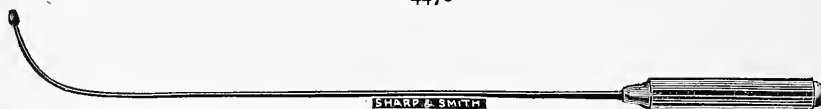
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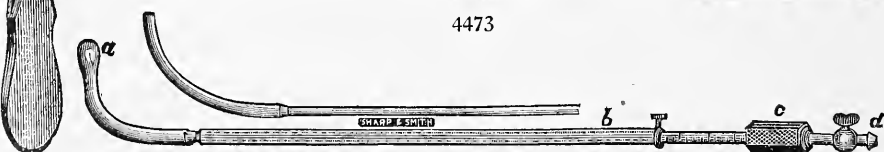
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4473



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4474

URETHRAL INSTRUMENTS.

FIG.

4454	Teft's Sound for Strictures exteriorly to the Triangular Ligament	\$ 95
4455	Flexible Metal Sounds.....	40
4456	“ “ double curved.....	60
4457	Goulay's Sounds, same prices as Van Buren's.	
4458	Otis' “ “ “ “	
4459	Straight Steel Sounds.....	90
4460	Double End Steel Sounds.....	1 00
4461	Pratt's “ “	75
4462	Winternitz's Cooling “	3 00
4463	Piffard's Fossil “	75
4464	Goulay's Tunneled “	1 85
4465	Lawrence's “	1 25
4466	Hale's Sound for Involuntary Emissions.....	1 75
4467	Benique's Sound.....	1 00
4468	Bumstead's “	1 00
4469	Hollow Sounds for Cold Water.....	2 00

STONE SEARCHERS.

*4470	Andrews' Stone Searchers, complete.....	\$ 1 75
*4471	Thompson's “ “	3 00
*4472	Goulay's “ “	1 50
*4473	Little's “ “	2 75
*4474	Otis' “ “	4 00
4475	Plain “ “	1 50
4476	Mercier's Prostatic Gland Dilator.....	7 50
4477	Goulay's “ “ “	12 00
4478	Walker's “ “ “	27 00
4479	Harrison's “ “ “	1 15

DILATORS.

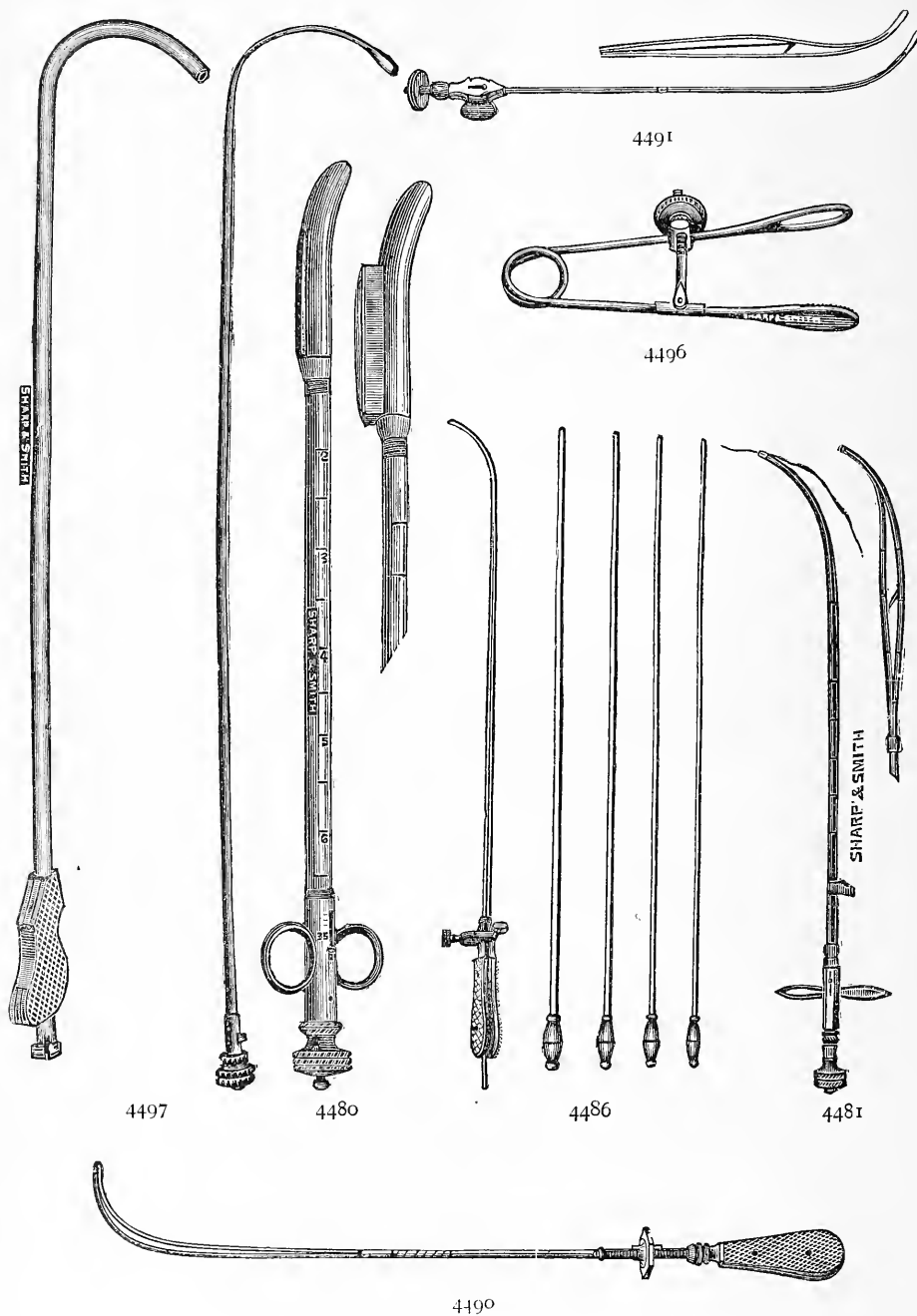
*4480	Schweig's Urethral Dilator.....	\$ 7 50
*4481	Goulay's “ “ for over-distension.....	9 00
4482	Thompson' “ “	7 50
4483	“ “ “ in case.....	9 00
4484	Goulay's (“ “ “	10 50
4485	Gross' “ “	10 50
*4486	Holt's “ “	13 50
4487	“ (Bumstead's) Urethral Dilator	10 25
4488	Dolbean's “ “	18 00
4489	Bigelow's “ “	11 50
*4490	Stearns' “ “	3 75
*4491	Priestley's “ “	10 50
4492	Thebaud's “ “	7 50
4493	Powell's “ “	27 00
4494	Steurer's “ “	6 00
4495	Voillerner's “ “	16 50
*4496	Otis' Meatus “	1 15
*4497	Thompson's Prostate Sound and Tube—Sound, \$2 25. Tube..	3 75



4471

See preceding and following pages.

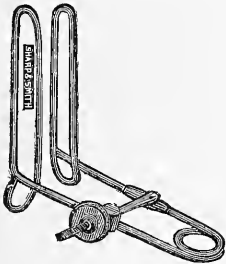
URETHRAL INSTRUMENTS—DILATORS.



See preceding page for prices

URETHRAL INSTRUMENTS.

FIG.			
4498	Desormeaux's Endoscope.....	\$45 00 to \$95 00	
*4499	Skene's "	2 00	
*4500	Otis' "	1 15	
4501	Laveur's "	15 00	
4502	Glass Mirror Urethral Speculum.....	35	
*4503	Sharp & Smith's Bivalve Urethral Speculum, 3½ inches long...	1 50	
4504	Meatus " " "	3 50	
*4505	Skene's Folsom's " " "	1 00	
*4506	" " " "	2 00	
*4507	Brown's " " "	3 35	
*4508	Lallemant's Silver Porte-Cautic.....	3 25	
4509	Gross' " " "	3 25	
4510	Wier's Meatoscope.....	1 00	
4511	Porcelain "	60	
4512	Silvered Glass Meatoscope.....	60	
4513	Smith's Urethroscope.....	6 35	



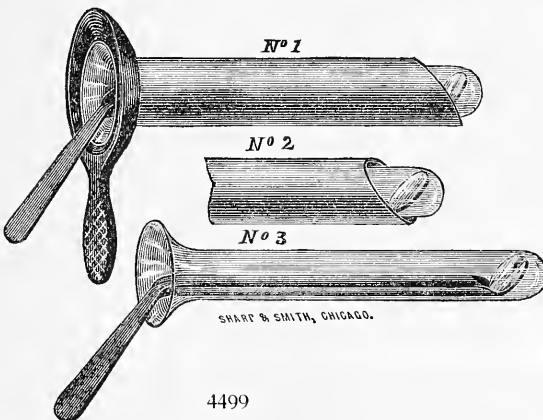
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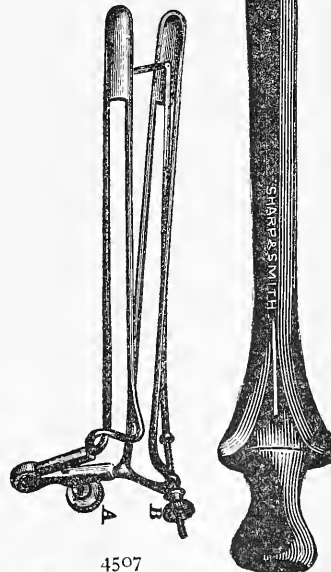
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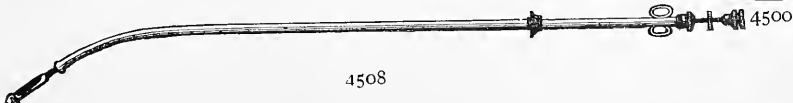


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4500



4508

URETHRAL INSTRUMENTS—URETHROTOMES.

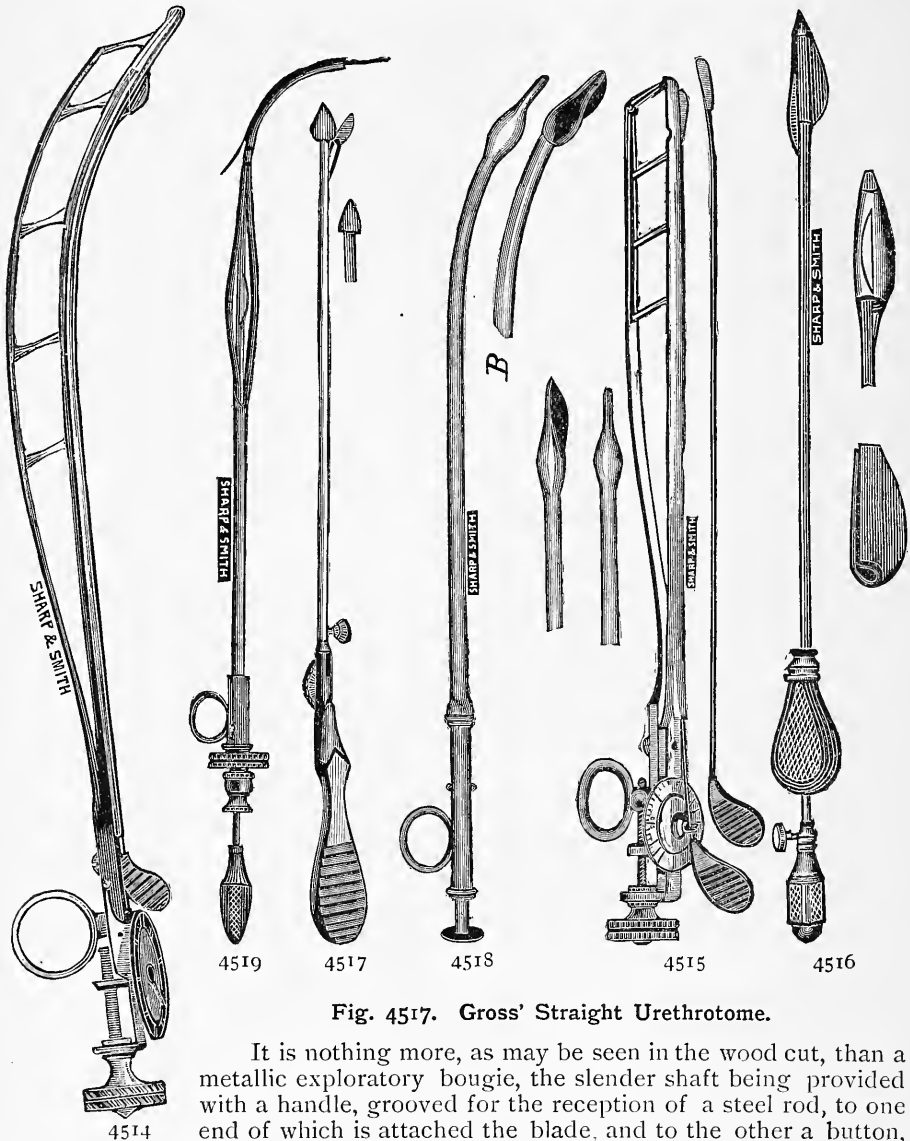


Fig. 4517. Gross' Straight Urethrotome.

It is nothing more, as may be seen in the wood cut, than a metallic exploratory bougie, the slender shaft being provided with a handle, grooved for the reception of a steel rod, to one end of which is attached the blade, and to the other a button, through the retraction of which the former is thrown out of the under surface of the bulb, so that the incision may be made along the floor of the urethra. The extent to which the blade can be projected is regulated by a lateral screw near the handle. The length of the contrivance is eleven inches, of which three are taken up by the handle, button and screw. In actual practice I have found two such instruments to be all that are required. In one, which is intended for strictures of moderate caliber, the bulb is equal to No. 15 of the French catheter scale; while in the other the bulb corresponds with No. 23, which suffices to define coarctations of much larger size. In exceptional cases, still larger bulbs may be demanded.

URETHRAL INSTRUMENTS—URETHROTOMES AND URETHROMETERS.

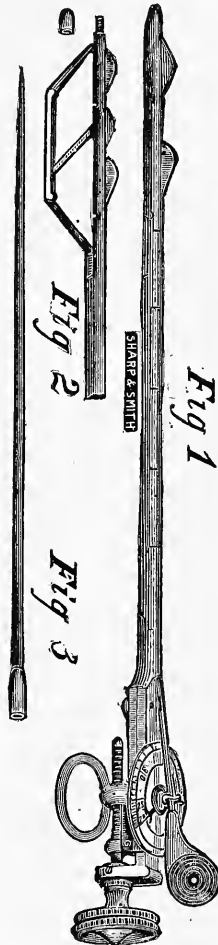
FIG.			
*4531	Mastin's Diagnosing Urethrotome.....	\$11	25
*4532	" " Instrument for Subcutaneous Urethrotomy	4	50
4533	Pritchett's Rotating Urethrotome.	18	75
4534	Westmoreland's Urethrotome.....	9	00
4535	Peters' "	4	50
4536	Banks' "	15	00
*4537	Otis' (modified by J. Blake White's), Urethrotome.....	30	00
*4538	Dr. J. Blake White's "	15	00
4539	Milnes' Dilating Urethrotome.....	12	75
4540	Stearns' Dilating Urethrotome.....	9	00
4541	Wyeth's "	27	00
4542	Hunter's " "	27	00
4543	Brown's " "	19	50
4544	Young's " "	37	50
4545	Rogers' " " and Urethrometer.....	30	00
4546	Walker's External Urethrotome.....	1	35
*4547	Otis' Urethrometer.....	13	50
4548	Weir's "	14	50
4549	Gross' "	5	00



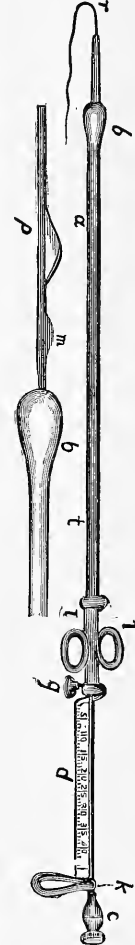
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4533



4534



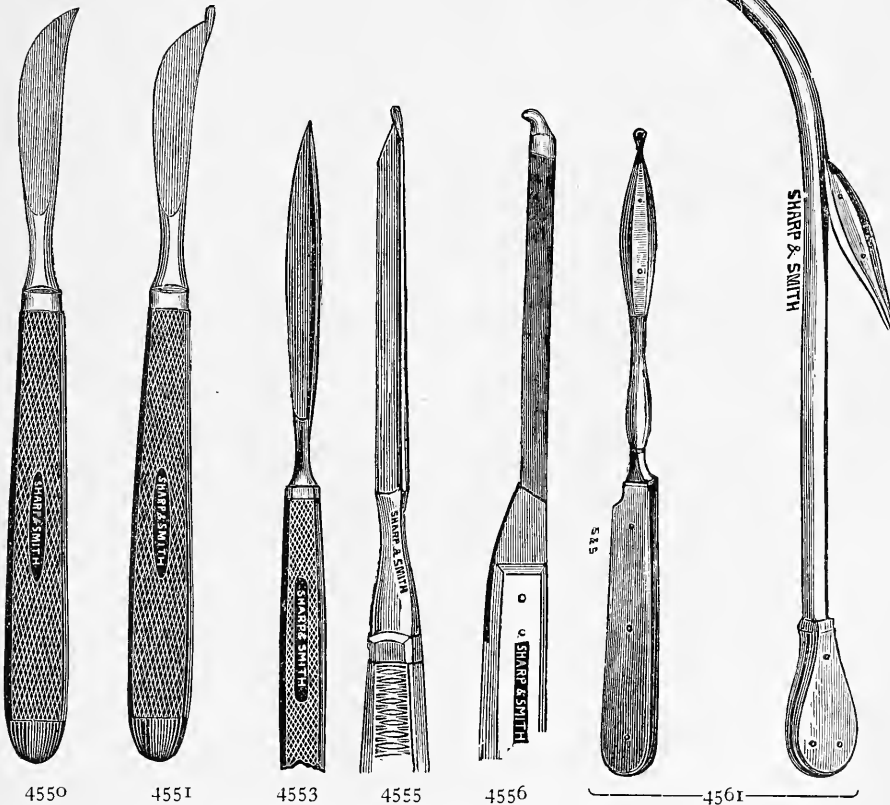
4535

URETHRAL INSTRUMENTS—STRICTURE CUTTERS.

FIG.		
*4550	Sharp Point Lithotomy Scalpel.....	\$ 1 50
*4551	Probe “ “ “	1 50
4552	Dupuytren's “ “ “	1 40
*4553	Little's Sharp Point Lithotomy Bistoury.....	1 25
4554	Gouley's Beaked “ “ “	1 20
*4555	Blizzard's Probe Pointed Bistoury American.....	1 50
*4556	“ “ “ “ English.....	1 50
4557	Wyeth's Sharp “ “ “	1 50
4558	Piffard's Fossil Stricture Cutter.....	7 50
4559	Civiale's Bistoury Caché.....	4 50
4560	Dupuytren's Double Bistoury Caché.....	18 00
*4561	Wood's Bisector.....	3 40
4562	Hutchinson's Lithotome.....	5 50



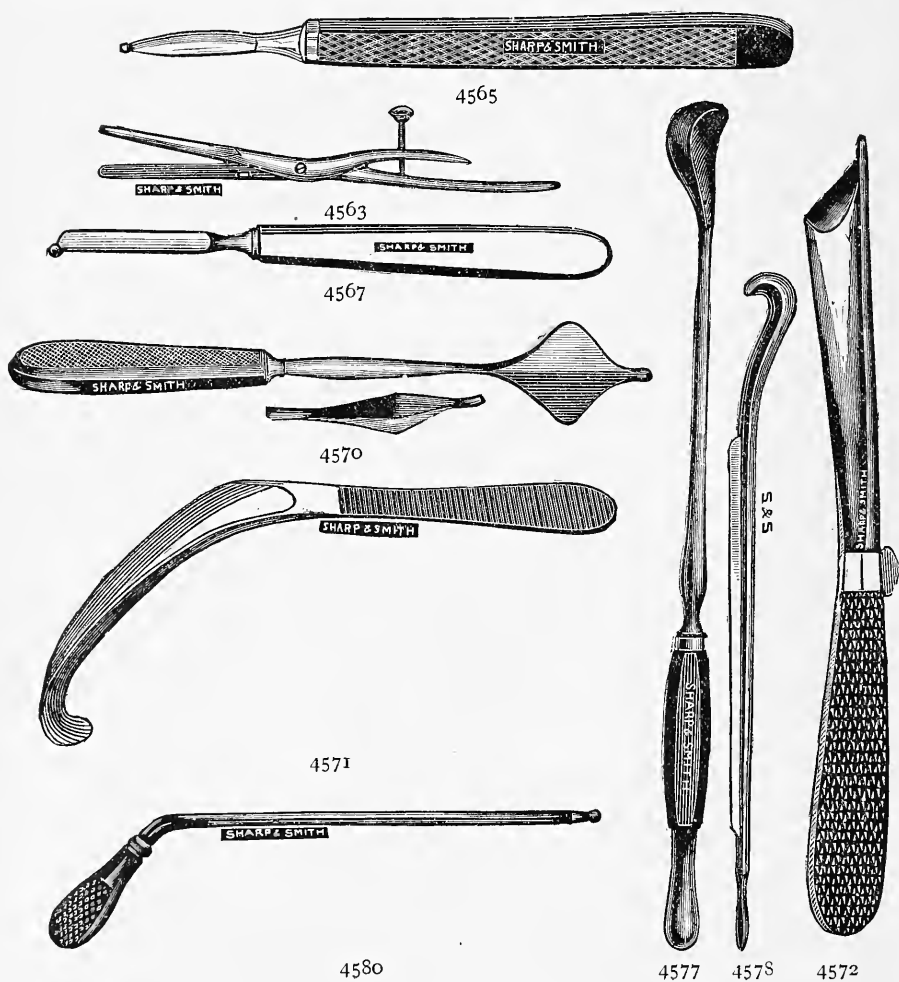
4558



All instruments designated by a * are illustrated.

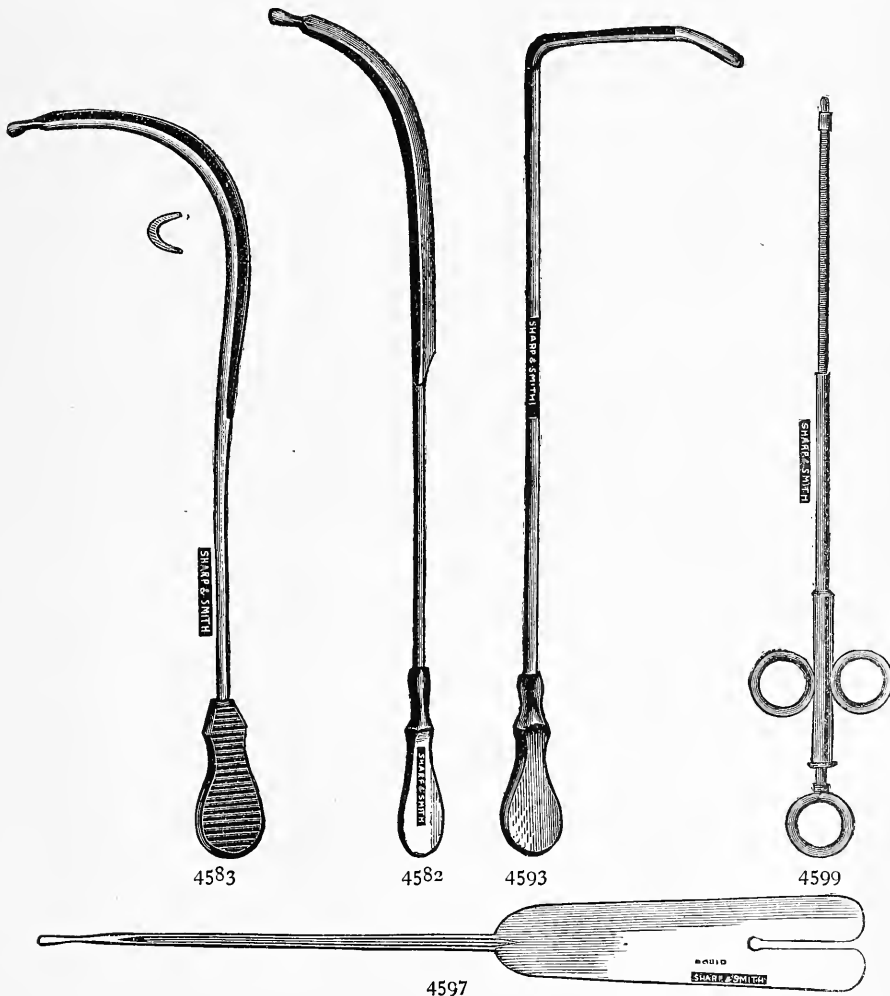
URETHRAL INSTRUMENTS—MEATOTOMES.

FIG.			
*4563	Gouley's Meatotome.....	\$	2 25
4564	Mitchell's ".....	16	50
*4565	Otis' ".....	1	50
4566	Civiale's ".....	4	50
*4567	Piffard's ".....	1	50
4568	Simpson's ".....	5	25
4569	Piffard's Meatometer.....		85
*4570	Bush's Gorget.....	3	40
*4571	Hooked Gorget.....	2	25
*4572	Physick's " two blades... ..	4	85
4573	Ordinary " Blunt.....	1	90
4574	Keyes' Blunt Gorget.....	1	85
4575	Scoop and Gorget.....	1	85
4576	Sims' Scoop.....	1	50
*4577	Luer's ".....	1	85
*4578	Scoop and Conductor.....	1	90
4579	Dowell's Gorget and Staff.....	4	25
*4580	Little's Lithotomy Director.....	1	15
4581	Gouley's ".....	1	20

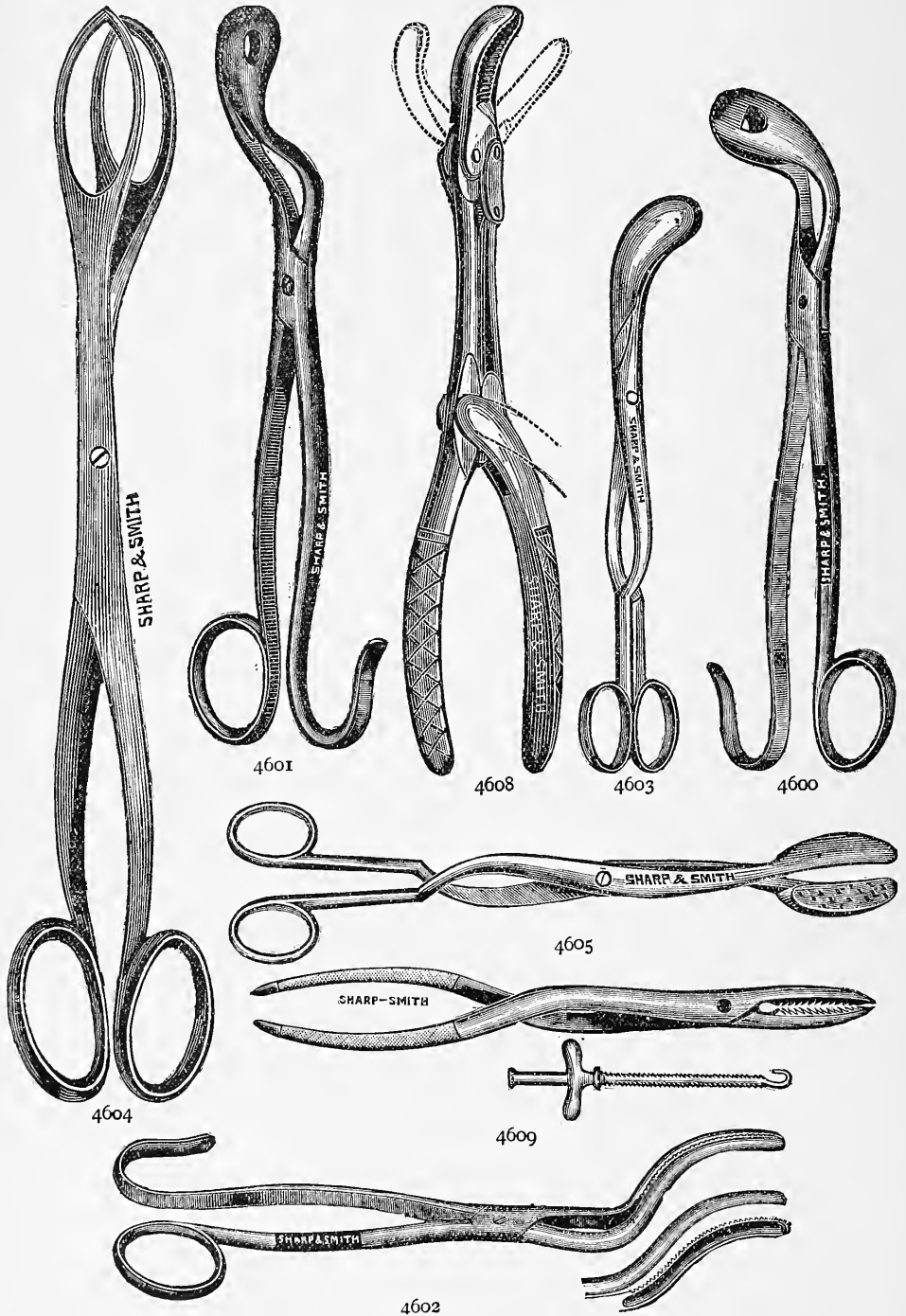


LITHOTOMY STAFFS.

FIG.			
*4582	Markoe's Lithotomy Staff	.....	\$ 1 50
*4583	Little's " "	.....	1 50
4584	Lateral " "	.....	1 50
4585	Rectangular " "	.....	1 90
4586	Plain Steel " "	.....	1 35
4587	Walker's " "	.....	1 50
4588	Buck's " "	.....	2 25
4589	Whitehead's " " and Knife	.....	9 00
4590	Woods' " "	.....	1 75
4591	Hewitt's " " and Knife	.....	3 00
4592	Syme's " "	.....	1 35
*4593	Buchanan's Rectangular Lithotomy Staff	.....	1 85
4594	Wheelhouse's " "	.....	1 50
4595	Single Edge Circumcision Knife	.....	1 60
4596	Double " "	.....	2 00
*4597	Circumcision Probe and Spatula	.....	75
4598	Silver Urethral Applicators	.....	1 50
*4599	McCoy's " "	.....	2 00

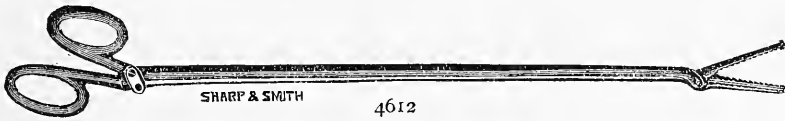


URETHRAL INSTRUMENTS—FORCEPS.



URETHRAL INSTRUMENTS—FORCEPS.

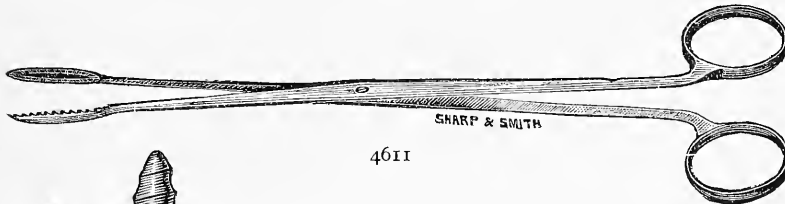
FIG.		
*4600	Curved Bladder Forceps	\$4 40
*4601	Double " "	4 40
*4602	Thompson's Bladder Forceps.....	4 40
*4603	Curved Lithotomy Forceps.....	2 25
*4604	Teevan's " " fenestrated.....	2 25
*4605	Little's " " straight.....	2 25
4606	Stone Crushing Forceps.....	4 50
4607	" Extracting "	2 25
*4608	Gouley's Double Lever Lithoclast....	7 50
*4609	Dolbeau's Lithoclast.....	5 25
*4610	" Lithotomy Guide.....	2 80
*4611	Thompson's Urethral Forceps	1 50
*4612	Alligator " " straight	4 00
4613	Mathieu's " " curved.....	4 50
*4614	Collins' " "	4 00
*4615	Hutchinson's Prepuce "	1 80



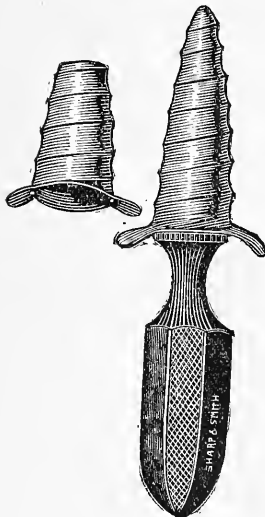
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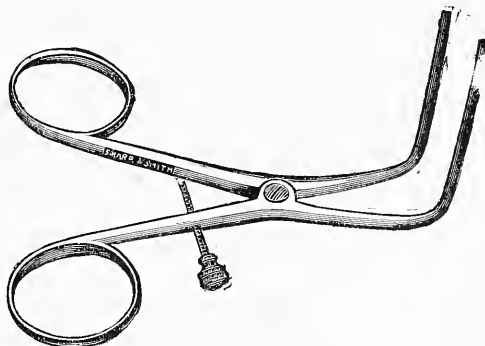
4614



4611



4606



4615

All instruments designated by a * are illustrated.

URETHRAL INSTRUMENTS—Lithotrites and Evacuators.

FIG.

*4616	Bigelow's latest Lithotrite.....	\$30 00
4617	Ferguson's ".....	20 00
4618	Teevan's ".....	27 00
*4619	Thompson's ".....	27 00
4620	Mathieu's ".....	11 25
4621	Jacobson's ".....	22 50
4622	Heurteloup's " and Mallet.....	18 75
4623	Gouley's ".....	27 00
4624	Keyes' ".....	27 00
4625	Chismore's Evacuating Lithotrite.....	18 00

LITHOLAPAXY.

Rapid Lithotrixy with Evacuation.

BY HENRY J. BIGELOW, M. D.

The following are the chief points connected with the modification in lithotrixy which I have described, and for which I propose the above name.

1. The calculus, although not necessarily pulverized, is crushed as rapidly and completely as is practicable. The dust and fragments are immediately evacuated, and a serious source of irritation is thus removed.

2. This can be generally effected in a single operation.

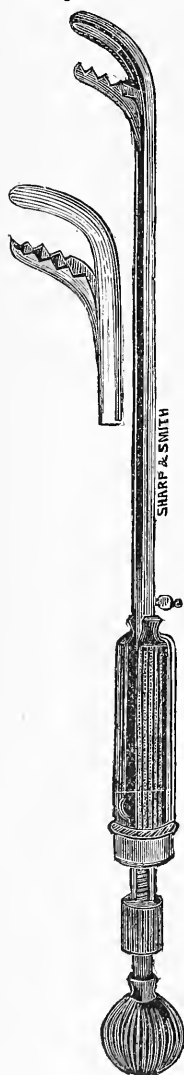
3. The operation—performed of course under ether—may be if necessary, of one or two hours' duration, or even longer.

4. The method applies to larger stones than have been hitherto considered to lie within the province of the lithotritist. It also applies to small stones, nuclei, phosphatic deposits, and foreign substances.

5. Evacuation is best accomplished by a large tube, preferably straight with a distal orifice, the extremity of which is shaped to facilitate its introduction, and, during suction, to repel the bladder wall—and by an elastic exhausting bulb, which acts partly as a siphon. Below the latter is a glass receptacle for debris.

6. The best size for the tube is the largest the urethra will admit.

7. Such a tube is usually introduced with facility, if passed vertically as far as it will go toward the anus before changing its direction, and afterward directed almost horizontally, and passed by rotation through the triangular ligament. The first part of this rule applies also to the introduction of a lithotrite, and even a curved catheter. A free injection of oil is im-



4616.
Bigelow's Lithotrite. portant.

8. A small meatus should be enlarged, or a stricture divulsed, to allow the passage of a large tube.

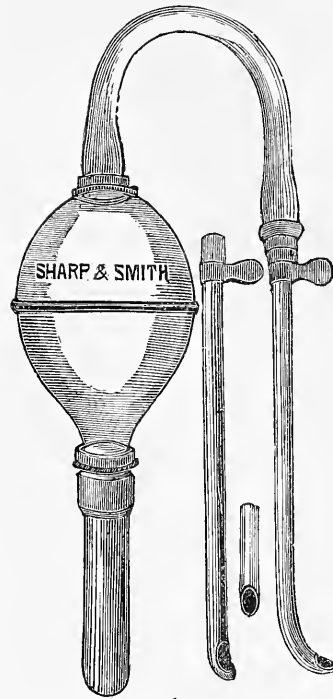
9. If the bladder be not small, a large and powerful lithotrite is always better than a small one.

10. That this may have room for action, the escaping water should be replaced occasionally, through a tube inserted a few inches into the urethra by the side of the lithotrite. But the bladder should not be over distended.

11. To save time, and also to prevent undue dilatation of the vesical neck, a non-impacting lithotrite is desirable. The jaws of a non-fenestrated instrument will not impact, if the male blade is furnished with alternate triangular notches by which the debris is discharged laterally, and also with a long thin spur at the heel fitted to a corresponding slot in the female blade—provided the floor of the female blade, especially at the heel, be made nearly on a level with its rim. To repel the bladder, the female blade should be longer and a little wider than is usual. It should have also low sides easily

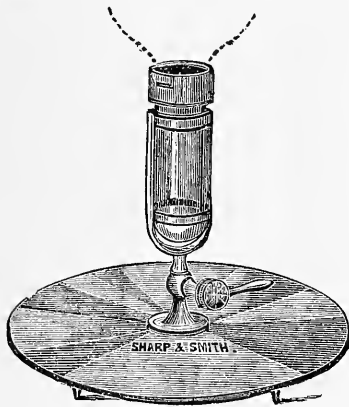
accessible to fragments, relying for strength less upon these than upon a central ridge below the heel. In the male blade of such a lithotrite the apices of the triangles should be a little blunted. Lastly, a non-fenestrated female blade protects the floor of the bladder, during a long sitting. A fenestrated instrument directs sharp splinters against it. The latter also delays the process of disintegration, by delivering through its opening the same fragments many times.

12. In locking and unlocking a lithotrite repeatedly in a long operation, it takes less time and is easier to turn the right wrist, as in my instrument, than to displace the thumb of either hand in search of a button or lever, as in previous instruments.



4627.

Bigelow's Evacuating Apparatus.



Stand for Bigelow's Evacuating Apparatus.

FIG.

*4626	Bigelow's latest Evacuating Apparatus (see page 728).....	\$22 50
*4627	Bigelow's old style " " and Stand.....	12 00
4628	Otis' " "	22 50
4629	Thompson's " "	10 00
4630	Nelaton's " "	22 50
4631	Clover's " "	10 50
4632	Walker's " "	16 50
4633	Keyes' straight Evacuating Tube with Obdurator.....	6 00
4634	" curved " " "	6 75

NEW OPERATION FOR PHIMOSIS.

By P. G. SKILLERN, M. D.

Fig. 4646.

I wish to invite the attention of the profession to a method of performing the operation of circumcision which I originally proposed and have since performed upon several cases of phimosis. The object sought to be obtained is to excise both prepuce and mucuous membrane at the same time, so that when the forceps are removed the glans penis will be at once entirely clear of both. In the ordinary manner of operating, it frequently occurs that the lining membrane of the prepuce covers and entirely surrounds the glans after the foreskin is removed, so as to necessitate slitting it up afterward. This is a real annoyance, and also protracts the healing considerably.

In performing this operation, the foreskin is to be retracted until the junction of skin and mucous membrane is reached, or as nearly so as may be desired; then three small hooks attached to a chain—somewhat similar to those contained in postmortem case, but smaller—are inserted from within outward, at



4646

equidistant points, first through the mucous membrane, then through the skin, thus fixing the two in their new relation to each other, so that when traction is made the mucous membrane is put upon the stretch. A grooved director is then passed around the glans, so as to break up any existing adhesions. Now the chain being kept taut, the forceps (see figure) are applied, and a threaded needle passed twice through the fenestra of the forceps, so as to leave two long threads passing through both skin and mucous membrane. The prepuce is then divided close to the blade of the forceps, and the latter removed. After ligaturing the small vessels, if necessary, the threads are raised on a director from the center between the remaining prepuce, and divided so as to leave four separate and distinct sutures, which, when tied, will leave both skin and mucous membrane nicely coapted.

This is the operation as done with the author's forceps. The results obtained by it in several cases in which it has been used, have been all that could be desired.

48 SOUTH BOND STREET, PHILADELPHIA.

A NEW PROCEDURE IN THE OPERATION FOR PHIMOSIS.

Fig. 4649.

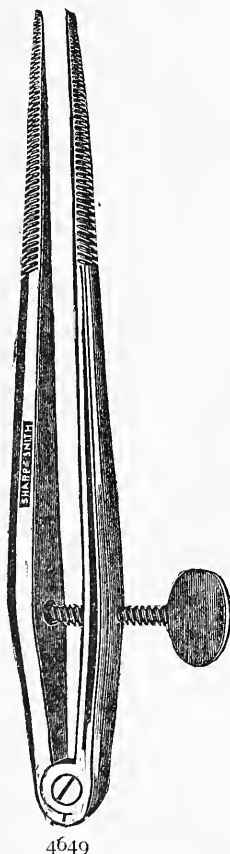
By R. J. LEVIS, M. D., Surgeon to the Pennsylvania Hospital, and to the Jefferson College Hospital.

The object of the instrument illustrated in the cut is to facilitate the entire excision of the inner inelastic mucous membrane of the prepuce, without removing any, or more than may be required, of the outer normal skin. In some cases of phimosis total circumcision is necessary, but in a considerable proportion only a partial ablation of preputial integument is essential, and the inconvenience may be readily overcome by the method I suggest, without causing disfigurement, or indeed, making much change from the normal appearance of the organ. In most instances only the inner lamina of the preputial fold is morbidly involved, and the excessive removal of the outer layer is an error which is liable to be committed in the usual manner of operating.

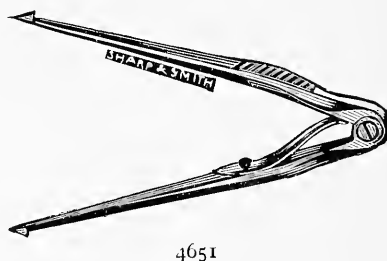
LEVIS' OPERATION FOR PHIMOSIS—Continued.

In general form the instrument somewhat resembles the ordinary mathematical compasses or dividers. The limbs, or blades, terminate in blunt points, and are deeply serrated on their outer surfaces, with points or teeth set backward, like fine saw teeth, for the purpose of firmly holding the mucous membrane, without the risk of slipping when traction is made. The blades are forced apart by a thumb screw.

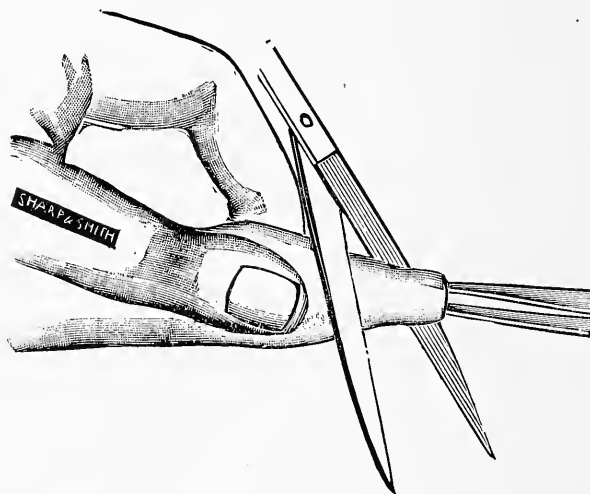
In operating, the blades, closed to a point, are introduced within the prepuce up beyond the corona of the glans. They are then, by turning the thumb screw, strongly separated, so as to render the mucous membrane tense. Traction is then made, and the outer elastic skin is drawn back fully, so as to be away from the portion to be excised, and excision is effected by transfixing the prepuce through the middle with a bistoury, and cutting laterally in both directions toward the blades of the instrument. Any remaining portion of inelastic tissue may be removed with the scissors, and the operation is completed by attaching the cut edge of skin to the edge of mucous membrane remaining around the cervix by a few stitches. In this manner the inner inelastic mucous membrane may be removed, while all the normal outer integument remains.



4649



4651



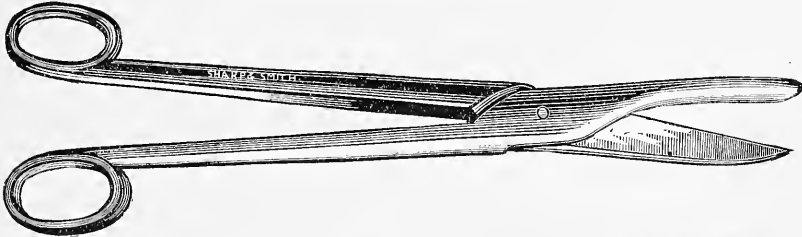
4651.—Showing Girdner's Method of Operation.

Figure 4651. This instrument is introduced *closed* into the preputial opening, then, relaxing the spring, causes the barbs to transfix, first the mucous membrane, and then the skin.

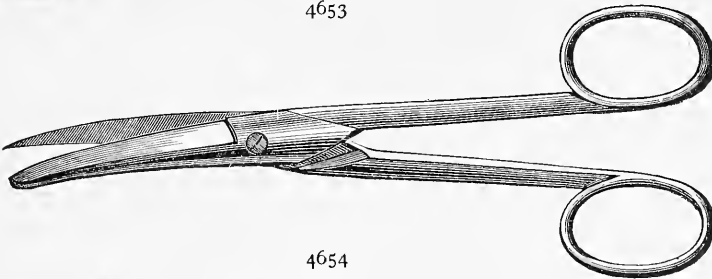
URETHRAL INSTRUMENTS—PHIMOSIS, VARICOCELE.

FIG.		
4652	Baruch's Circumcision Scissors.....	2 00
*4653	Taylor's ".....	3 75
*4654	Curved on flat ".....	1 00
*4655	Lewis Varicocele Clamp.....	3 00
4656	Sayre's ".....	3 00
*4657	Andrews' ".....	4 00
4658	Wood's ".....	1 85
*4659	Henry's Scrotal ".....	6 50
*4660	" ".....	6 50
*4661	" Cartilage Scissors.....	3 75
4662	Masturbation Clamp.....	75
4663	Keyes' Varicocele Needle.....	1 00
4664	Whitfield's ".....	1 25
4665	Wyeth's Cocaine ".....	1 00
4666	Miliano's Scrotal Compressor.....	1 25
4667	Carroll's ".....	1 00
4668	Howe's ".....	2 40

(See Suspensories in Index).



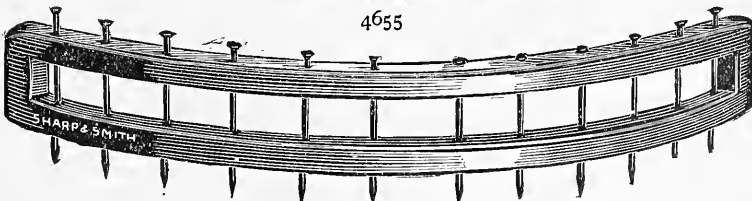
4653



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URETHRAL INSTRUMENTS—VARICOCELE.

[Extract from the "Medical Record," May 28th, 1881.]

(Read before the New York Academy of Medicine, April 21st, 1881.)

REMARKS ON AMPUTATION OF REDUNDANT SCROTUM FOR THE RELIEF OF VARICOCELE.

Illustrated with New Instruments to Facilitate the Operation.

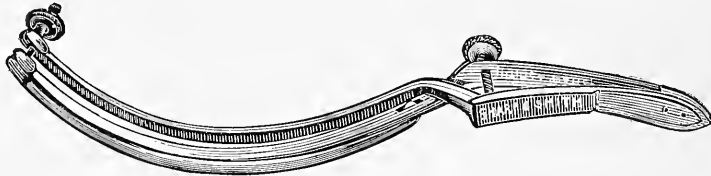
By M. H. HENRY, M. A., M. D., Late Surgeon-in-Chief State Emigrant Hospitals, Ward's Island, New York, Etc., Etc.

* * * In the removal of a redundant scrotum in the manner I shall describe, for the relief of varicocele, no more than ordinary skill is called for. The success of any delicate surgical operation depends mainly on the care and management before, during, and subsequent to the operation. I have ventured to allude to many little details because I am fully impressed that they bear a most important relation to the chances of success.

Success in any operation depends on attention to details. Failures are too frequently the result of neglect of these so called trifles. Cases of minor surgery have frequently—by neglect of details—been converted into cases of major importance.

DESCRIPTION OF INSTRUMENTS.

This instrument, which I have called scrotal forceps or clamps, consists of two parts (Fig. 1.) The main part of the instrument has two double curved



4659—Fig. 1.

blades, made of steel, about ten inches long, sufficiently heavy to give strength and admit of pressure without injury when in contact with the tissues. The handles are large enough to admit of a good grasp without cramping. That part of the instrument below the joint is curved as nearly as possible according to the natural lines of the raphæ, from the upper anterior part of the scrotum down to and under the scrotum, so that it embraces, when placed in front of the scrotum the entire and exact portion which it is desired to remove. The coating surfaces are evenly notched to prevent the tissues from slipping, affording a more secure hold on the soft parts, with less pressure and less injury than smooth surfaces. The blades are only thick enough to give strength, without leaving too much tissue in front.

The handles are curved so that while they maintain a direct median line, they do not interfere or press on the genital parts. The double spring, besides giving additional security and compactness, renders them, to a great extent, self-acting, easy of manipulation, and that, at times, of very great consequence, ability on the part of the operator to perform the operation without the aid of additional assistance.

The screws in the handle and at the end of the blades afford a complete and perfect hold of the parts to be removed. They are not adjusted until the operator is perfectly satisfied that he has embraced the exact portion to be removed in front of the blades.

URETHRAL INSTRUMENTS—VARICOCELE.

The extra blade is made of steel, nickel plated, and is maintained in the right anterior surface of the clamp by two small pins that fit in grooves cut in the clamp. It is easily inserted with a little pressure, and removed as easily by pressing downward and forward; it is then dislodged by slightly raising the extreme end. The extra blade, when in position, leaves a fenestra to afford the surgeon the facility of inserting all his ligatures, should he prefer it, before dividing the parts. The thickness or amount of the tissue left in front of the main blade and between that and the extra blade, which is the guide for the part to be removed, is ample to assist union, and if the division is a clean one, and the stitches are close and evenly inserted, the pressure and tension are so slight or rather, so divided over the entire cut surfaces, that there is little probability of ulceration through the stitches before union has taken place.

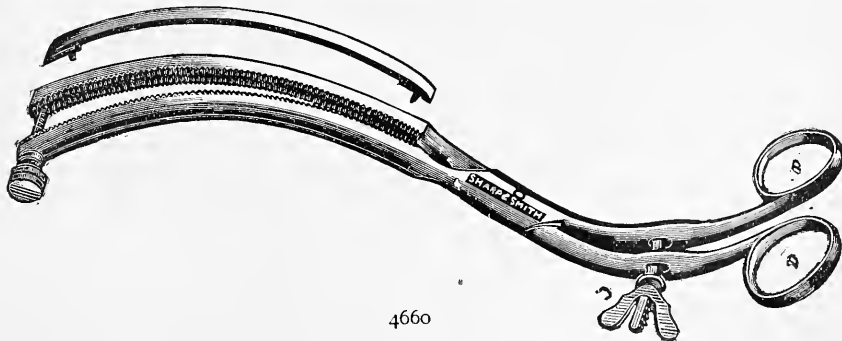
When the part has been removed, the extra blade is displaced, leaving a free border exposed in front of the main blade about a quarter of an inch in thickness. In a few minutes the whole wound can be stitched without any inconvenience. The clamp is, of course, not removed until this is accomplished.

Besides the clamp, the only instruments necessary are the scissors or scalpel, needles, with either silk or fine silver wire for sutures, a few acupressure needles, a few *serres-fins*, silver pins and some adhesive plaster.



4661—Fig. 2.

For the removal of the redundant portion I prefer scissors to the knife. I am inclined to think the hemorrhage is apt to be less and the cut edges heal more readily by first intention. I cannot give any positive explanation for this, but such is my impression. When the double layers of the scrotum are tightly compressed between the blades of the clamp, it forms a very dense, tough substance, and requires a pair of very strong, sharp scissors to cut through. It is as dense as cartilage. A strong pair of scissors will, with some extra effort, serve the purpose; but to insure an easy and clean removal of the part, I use a cutting instrument which I have named cartilage scissors (Fig. 2). I have dispensed with the rings. These scissors can be grasped and handled with the utmost ease. By the aid of the springs on the inner sides of the handles they are self-acting so far as opening the blades. They are curved on the flat side. They are not only useful for this operation, but will, I think, be found to serve better, and are handled with greater facility, than any other scissors wherever a cutting instrument is needed for cartilage or other dense or thickened tissues.

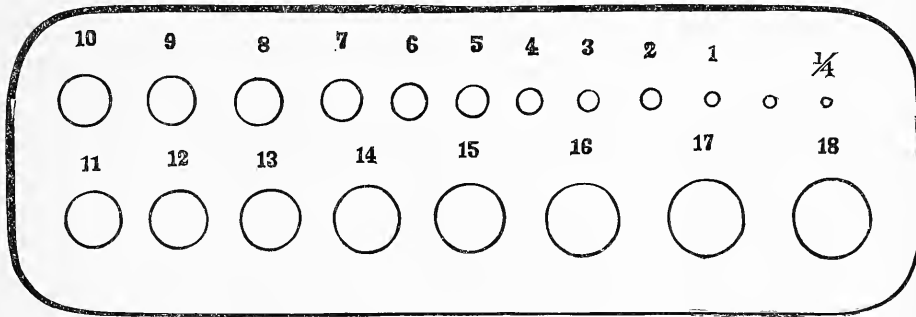


4660

URETHRAL INSTRUMENTS.

FIG.

4683	Hunter's Urethral Tourniquet.....	\$ 4 50
4684	Dolbean's Lithotomy Dilator.....	18 00
4685	Walker's Prostatic Divulsor	1 50
4686	Penis Congester.....	3 75
4687	Bumstead's Lamp.....	2 40
4688	Hard Rubber Caustic Holder.....	40
4689	Dick's Caustic Catheter Holder.....	2 65
4690	Debris Tube and Obdurator.....	1 85
4691	Circumcision Spatula.....	40
4692	Mussey's Bladder Curette.....	3 40
4693	Gouley's Sharp Hook.....	1 00
4694	Brown's Air Tampon for Hæmorrhage.....	3 00
4695	Pasteboard Catheter Scales. No charge.	
*4696	Metal Catheter Scales, all Gauges.....each.	3 00



4696

PLEASE DO NOT CUT OR MUTILATE THIS BOOK.

In ordering, state number of page and figure, and we can promptly fill your order.

Ask for "SHARP & SMITH'S" Instruments in ordering through dealers.

APPLIANCES FOR DEFORMITIES AND DEFICIENCIES, CONGENITAL OR ACQUIRED.

PRICES QUOTED ARE TO PATIENTS.

The period when the mechanical treatment of deformities was chiefly a question of brute force is not so remote that the remembrance of it should have altogether escaped from the minds of the medical professors. Formerly surgeons sought to compel by violence, directly or indirectly applied, a distorted spine to resume its normal position. An idea of the primitive method is to be found in the practice, now extinct, of constructing apparatus for the treatment of spinal curvature upon an ideal type of a symmetrically formed spine, and exercising force with the intention of causing the curves of the distorted spinal column to approximate to those of the instrument. The mechanist now recognizes the fact that the laws of nature must be set in operation. Hence he applies himself diligently to study those laws by which the symmetry of the human frame is maintained, as well as the mode of action of the different causes which lead to a deviation from the normal standard. Anticipating these causes, he seeks to check the further progress of the disease, and to remedy its sure results. He no longer seeks to secure his object by a mere empirical use of mechanical force, but he seeks to attain it by a just adaptation of the means at his command, founded upon a careful appreciation and accurate calculation of the kind, direction and amount of force required. The evils of an empirical system of mechanical appliances were shown not only by the inefficiency or actual unfitness of the apparatus made for a given purpose, but also by the imperfection of their construction. They were commonly made either more complex than was necessary, or so simple as to be worthless, or so heavy and cumbersome as to weary the body, and so act as to constrict the muscles, or so light as to yield to the distension. Lightness of an instrument is too often sought at the expense of more important properties.

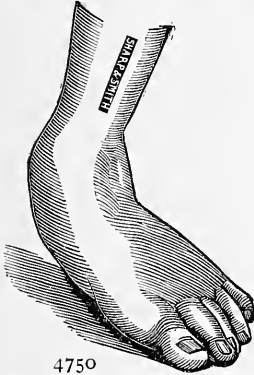
These evils are the result of an insufficient knowledge of the lesions to be treated. The scientific mechanist constructs his appliances from an accurate estimate of the character and arrangement of the force needed, and of the strength of material required to meet the object he has in view. Thus he avoids on the one hand too great complexity, and on the other a deceptive simplicity of construction. He thus combines durability with the greatest attainable lightness consistent with efficiency. This branch of mechanical surgery needs a special training, and cannot be acquired without a certain amount of surgical education.

We pay special attention to the careful and correct fitting of braces.

Surgeons residing at a distance whose patients cannot visit us for adjustment, will have their orders promptly attended to by sending us the particulars found accompanying each illustration.

DEFORMITY APPARATUS.

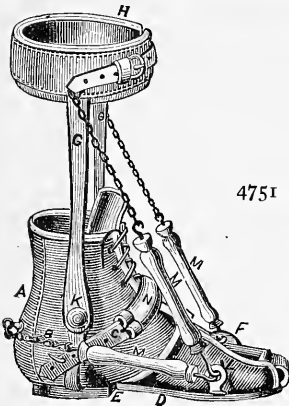
We manufacture a variety of shoes to meet every form which the foot can assume. There are four varieties of primary club foot, viz. Talipes Valgus, Equinus, Varus and Calcaneus. Two or more of these varieties may exist together, forming sub-varieties. Talipes Valgus, or lateral yielding of the ankle joint outward, combined with extension and sometimes obliteration of the arches which compose the plantar surface, or sole of the foot, is among the most common of these deformities of the lower extremity, which calls for mechanical treatment.



4750

ing flexion and eversion, and an elastic strap in front to secure heel in position; the upper leather laces neatly over the foot, adapting itself more perfectly than if arranged with straps and buckles.

Fig. 4750 exhibits diminution of the niched arches of the foot; the toes are averted, and the external malleolus buries its contours in the external tarsal fossa. In every case it should first be decided whether divisions of the tendons be advantageous, or per contra. In severe cases of Valgus there can be but little doubt that as the peroneal muscles aid in raising the external margin of the foot, divisions of their tendons will often materially lessen the period of mechanical treatment by instantly removing one of the main obstacles, by tenotomy. But a large portion of cases recover without operation by using Dr. L. A. Sayre's Club Foot Shoe, (Figs. 4751 and 4751-A.) The shoe pictured below is arranged for valgus or varus. This simple but ingenious shoe, contrived by Dr. Sayre, is so constructed that it can be applied and secured accurately to the deformed foot, before the elastic force is attached, instead of adjusting the foot to the shoe. This shoe is made with two lateral rods of steel running up to the calf of the leg, with a joint for its ankle, and it has in the sole opposite the medio-tarsal articulation, a ball or socket or universal joint, and three elastic muscles for the purpose of making flexion and eversion, and an elastic strap in front to secure heel in position; the upper leather laces neatly over the foot, adapting itself more perfectly than if arranged with straps and buckles.



4751

Figs. 4751, and 4751 A. Sayre's Club Foot Shoes.

In ordering these shoes, send the following Measurements.

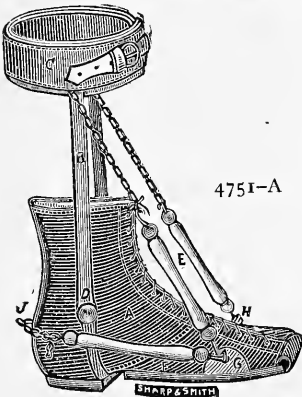
INCHES.

- 1 Length of sole of foot.....
- 2 Circumference of calf.....
- 3 Circumference of instep.....
- 4 Circumference of ball of foot.....
- 5 Circumference above ankle.....
- 6 Length from floor to garter.....
- 7 Right or left foot?.....
- 8 Talipes—varus or valgus?.....

Price to patients, Single Shoe \$10 00 to \$14 00

“ “ per pair 20 00 “ 28 00

(According to size.)



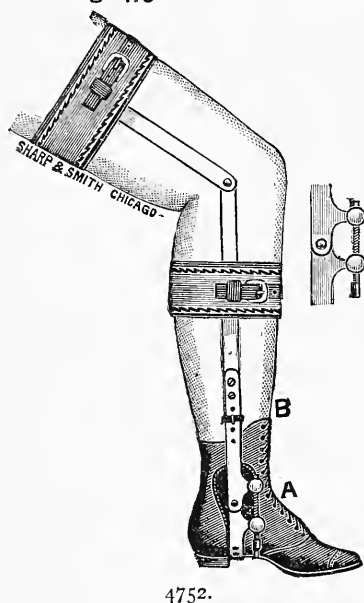
4751-A

Fig. 4751-A is same as 4751, except that pressure in front to keep heel in position is of “leather,” and directly next the foot inside of shoe.

DEFORMITY APPARATUS.—TALIPES VARUS.

This deformity is, in a majority of instances, of congenital origin. Its distinguishing features are retraction of the heel, an inversion of the toes, and a rotation upward of the entire foot, the inner lateral margin of which very often holds a position rectangular to that of the normal position of the limb. The foot, as is shown, is longitudinally turned, so that the external margin stands on the floor, whereas the internal margin is uppermost. The foot touches the ground anteriorly from the external malleolus; the back of the foot has a forward and the plantar surface a backward direction, which, of course, implies inversion of the toes.

Fig. 4752. PROF. GUNN'S APPARATUS FOR TALIPES VARUS.



Directions for Measurement.

1. Patient's name (or sex).
 2. Which leg (or both). Inches.
 3. Length from floor to ankle joint.
 4. Length from floor to knee joint, inner inside.....
 5. Length from floor to knee joint, outside.....
 6. Length from floor to upper third of thigh.....
 7. Circumference of ankle.....
 8. Circumference of calf.....
 9. Circumference of upper third of thigh.....
- Patients will furnish their own laced shoes, or send us the following additional measurements if they wish us to furnish them: Inches.
10. Length of sole of foot.....
 11. Circumference of ball of foot..
 12. Circumference of instep.....
 13. Circumference above ankle.....

This apparatus is especially useful in cases of children one year and upward. Steel bars pass up on each side of the leg, having joints at knee and ankle, which allows motion of joints and at the same time prevents heel from drawing up. The part extending to upper third of thigh prevents brace from turning on leg, holding the foot in natural position. We have found by experience that all short appliances extending only to garter will turn on leg, and thus allow foot to turn. In all cases where the foot cannot be held straight with the hands without pain the tendons should be cut, so the foot can be placed in a straight shoe. The operation should not be done until apparatus is ready to apply at once.

To apply the brace the screw at ankle-joint should be removed to enable you to get heel well down in shoe. The shoe must be laced tightly before placing brace in position on leg. Put screw in place after brace is adjusted.

This apparatus can be lengthened as child grows, and new shoes put on as often as required. Full tension of screw at ankle should not be put on tendo Achilles directly after operation, but should be gradually tightened for the first three or four days.

Fig. 4752 Price to Patients for Apparatus for one leg.....\$15.00 to 20 00
 " " " " " both legs..... 30.00 to 40 00
 (According to size.)

DEFORMITY APPARATUS.

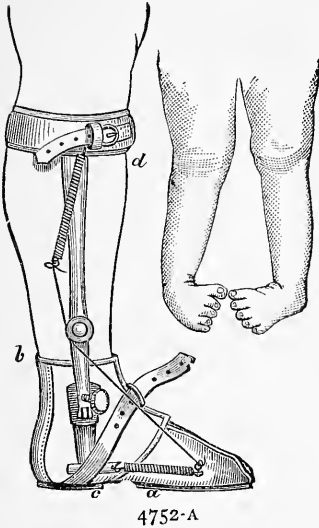


Fig. 4752-A. IMPROVED SHOE FOR TALIPES VARUS.

Directions for Measurement.

1. Length of foot.
2. Circumference of calf.
3. " of instep.
4. " of ball of foot.
5. " above ankle.
6. Length from floor to garter.
7. Right or left foot.

Price to Patients, one shoe (according to size).....\$10 00 to 14 00

Price to Patient, two shoes (according to size).....\$20 00 to 28 00

TALIPES EQUINUS.

The chief anatomical characteristic is a permanent contraction of the tendo Achilles, by which the os calcis, the posterior pier of the plantar arch, is raised to such an extent as to cause the whole weight of the body to pass through the front of the foot only, thus destroying the natural heel and toe action during progression. Fig. 4753 shows Talipes Equinus. The plantar arch is materially increased, and the toes, more especially the large ones, are drawn back. The Achilles tendon is found to be extremely tense, and is rendered still more so by any attempt to flex the foot.

Fig. 4754. SHOE FOR TALIPES EQUINUS.

Directions for Measurement.

1. Patient's name (or sex.)
2. Patient's age.
3. Weak ankle, resembling varus or valgus?
4. Right, left, or both feet?
5. Tendo achilles contracted?
6. Length from floor to ankle joint.....Inches.
7. Length from floor to garter.....
8. Circumference of calf
(If you wish us to furnish shoes, send the following additional measurements.)
9. Length of sole of foot.
10. Circumference of ball of foot.....
11. Circumference of instep.....
12. Circumference above ankle.....

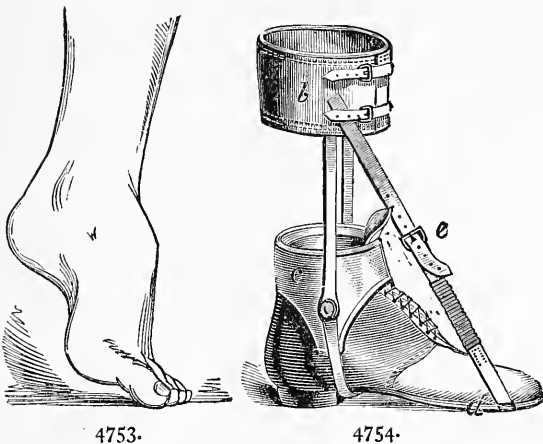
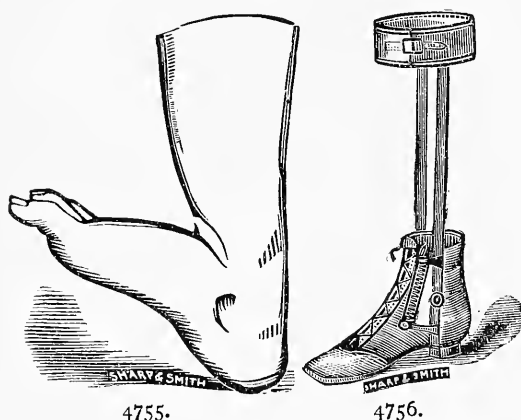


Fig. 4754 Price to Patients for one shoe (according to size)..\$ 8 00 to 12 00
 " " " two shoes " " ...16 00 to 24 00

DEFORMITY APPARATUS.

TALIPES CALCANEUS.

The patient walks on the heel with the toes uplifted without much lateral distortion (see Fig. 4755); the plantar arch is contracted, by which occurrence the outer extremities of the metatarsal bones and the os calcis will be approximated, and the sole of the foot is almost invariably contracted in its long axis. These are the distinguishing features of this deformity. In such cases, shoe figure 4756 is most efficient.



Directions for Measurement.

1. Patient's name.
2. " weight.
3. " age.
4. Right or left foot.
5. Length from sole to ankle joint.
6. Length from sole to calf.
7. Circumference of calf.

Fig. 4756 Price to patients for brace for one leg.....\$10.00 to 20 00
 " " " " two legs..... 20.00 to 23 00
 (Shoes extra.)

Fig. 4757 represents an Apparatus for Weak Ankle, and after treatment of Talipes, which will retain the limb in correct position in cases where there is a tendency to Club Foot. The instrument is attached to an ordinary laced boot, has two lateral rods connected at the calf, with padded band, and fastened with straps and buckles, has an ankle joint, a stud above and below for the purpose of applying a strap of stout leather to hold the ankle in position. This strap is used only in Weak Ankles. In after treatment of Talipes the same mechanism is used, but furnished with a stop ankle joint, the object of which is to maintain the plantar surface in a horizontal position, especially where it manifests any tendency to obliquity. Since the stems are riveted to the sole of the shoe, and connected at the calf by the padded band, they compel the bottom of the foot to remain at right angles with themselves. It is impossible for the sole to become oblique without a shortening of one of the perpendicular bars.

See following page for illustration of Weak Ankle Braces.

DEFORMITY APPARATUS.

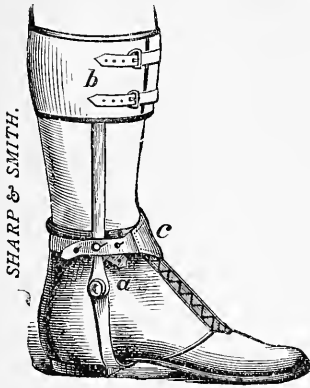
WEAK ANKLE BRACE.

Directions for Measurement.

1. Patient's name (or sex).
2. Patient's age.
3. Weak ankle, resembling varus or valgus?
4. Right, left, or both feet?
5. Tendo Achilles, contracted?
6. Length from floor to ankle joint..... Inches.
7. Length from floor to garter..... "
8. Circumference of calf..... "

If you wish us to furnish shoes, send the following additional measurements:

9. Length of sole of foot..... Inches.
10. Circumference of ball of foot..... "
11. Circumference of instep..... "
12. Circumference above ankle..... "



4758

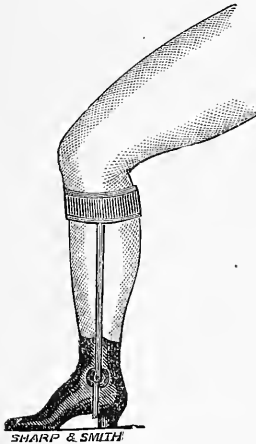
WEAK ANKLE BRACE.

Directions for Measurement.

1. Send laced shoe to fit foot, or give size of foot.
2. Patient's name (or sex).
3. Length from floor to ankle..... Inches.
4. Length from floor to garter..... "
5. Circumference at ankle..... "
6. Circumference at garter..... "
7. Which foot, right or left?
8. Which way ankle bone tips, in or out?
(Shoes extra.)

- *4758 Price to Patients, for single brace, according to size..... \$8 00 to 10 00
- *4759 Price to Patients, for two braces, according to size..... \$16 00 to 20 00

The above (Fig. 4759) represents a milder form of weak ankle brace, which is sometimes all that is required.



4759

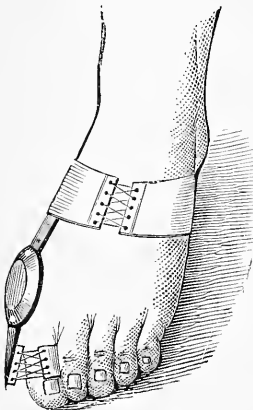
Fig. 4760—BIGGS' BUNION APPARATUS.

This apparatus consists of a delicate lever of spring steel, with an oval ring in the center which is provided with hinges at its anterior and posterior margin. The apparatus is attached to the instep by a laced band, and the toe to the extremity of the spring by a piece of webbing. It affords the articulation freedom of motion in the natural plane, whilst the malposition of the toe is gradually rectified by constant lateral traction. It can be worn in a shoe.

Directions for Measurement.

1. Place the foot on paper and trace with pencil.
2. Circumference of ball of foot..... Inches.
3. Circumference of instep..... "

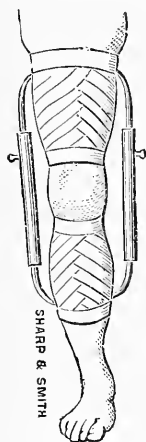
Price to Patients, single..... \$ 8 00 to 12 00
Price to Patients, double..... 16 00 to 24 00



4760

DEFORMITY APPARATUS.

Fig. 4761 represents an instrument for extension of the Knee Joint. It is constructed in the following manner: Two bands or collars of stout sheet iron, about one inch wide, embrace the limb, the one just above the ankle, the other at the upper third of the thigh. The bands are hinged posteriorly, and in front slide together like a dog collar. They are connected on either side by a firmly riveted steel rod, in the center of which works a screw, which can be retained at any given point by a small thumb screw working in its slide, and fastening to the thread of the larger screw. To apply this instrument the Canton flannel adhesive plaster is required. It is applied from the ankle to a point just below the knee, and from a point just above the knee to the top of the instrument upon the leg perpendicularly. The plaster strips are secured in their place by a roller bandage. The connecting rods are extended, the articulating surfaces of the tibia and femur separated, and the limb brought nearly straight again. Sponge is used to absorb the deposits that generally form in and around the joints in this condition of chronic inflammation. If this instrument is applied in the manner above described, and when extension is exerted, the patient will be enabled to bear almost the entire weight of the body upon the limb. With this instrument and the aid of a pair of crutches, the patient will be enabled to exercise in the open air with perfect comfort.



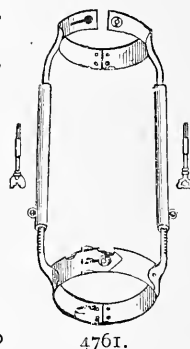
4761 Applied.

SAYRE'S KNEE EXTENSION APPARATUS.

The necessary measurements in ordering this apparatus are as follows:

1. Circumference of Thigh.... Inches.
2. Circumference of Leg above Ankle.. "
3. Circumference of Knee..... "
4. Length from above Ankle to upper third of Thigh..... "

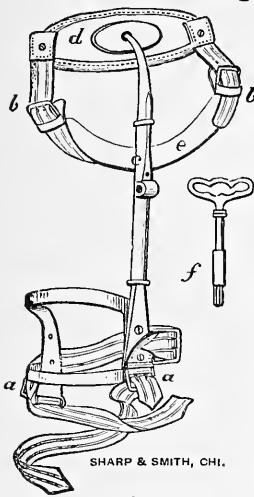
Price to Patients.....\$20 00



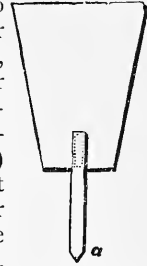
4761.

Fig. 4762 represents a splint for Morbus Coxarius. The instrument consists of a flange of steel three or four inches long and about one inch wide (according to the size of the patient), slightly curved, and which, when cushioned, fits directly under the crest of the ilium. At each extremity is a buckle to secure the perineal band, made of buckskin, filled with bran or stuffed with hair, and with ends of web (non elastic) to attach to the buckles. On the outer side of the flange is a ball and socket, or universal joint, to receive the head of the splint which runs down the thigh to within three or four inches of the extremity of the femur, and is capable of being made longer or shorter by a ratchet worked with a key. Near its lower extremity is attached a branch, which, curving over the thigh, extends as far down as the main splint, and both terminate in broad ends with a roller, over which a webbing attached to the adhesive plaster plays, and is secured to the splint by the means of buckles near each lower extremity.

See next page for description of Fig. 4762.

DEFORMITY APPARATUS.**Fig. 4762.—SAYRE'S HIP APPARATUS.****The Application of the Splint.**

The application of the splint is as simple as its construction. Take strong adhesive plaster, spread on twilled muslin; cut two fan-shaped pieces (shape of accompanying cut), one large enough to reach from the perineum to within two or three inches of the condyle of the femur, on the inner side of the thigh, the other from the trochanter major to a point directly opposite the end of the inner plaster. Sew on the narrow end of each (*a*) one of the webbings represented (*aa*) [not on the sticky side.] Apply them to their places, and after pressing them with the warm hand, to obtain a firm adhesion, secure them further by a well adjusted roller. The instrument contracted, is now laid over the thigh, the webbing (*a*) firmly fastened over the rollers to the buckles (*aa*) and the remaining one around the thigh. The perineal band is now adjusted rather



firm, and the instrument extended with the key, just enough to make the patient comfortable, and then locked by pulling the slide down over the spring.

In order to prevent the limb from swelling below the bandage, Dr. Sayre recommends the use of an elastic stocking or knee-cap.

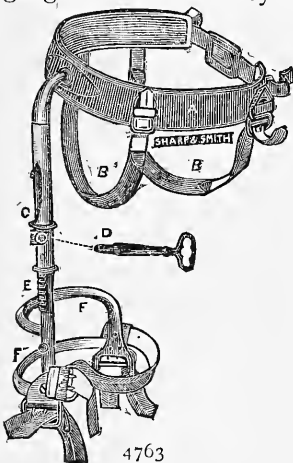
Price to Patients.....\$15 00 to 18 00

Fig. 4763.—SAYRE'S IMPROVED HIP APPARATUS.

Dr. Sayre has improved his first device in many respects, and the instrument now employed by him is a short thigh splint, as shown in Fig. 4763.

It consists of a pelvic band passing partly around the body under the crest of the ilium, well padded on its inner surface, to which usually two perineal straps are fastened for counter-extension; its outer surface holds a ball and socket joint, from which runs a steel bar or rod down the outer side of the thigh to within about two inches of the lower end of the femur. This outer bar is divided into two sections, one running within the other, and gauged or controlled by a ratchet and key, which can make it longer or shorter.

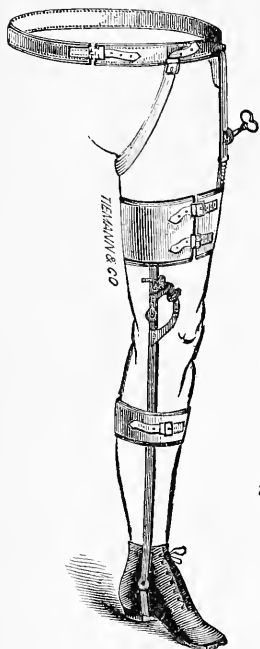
At the lower extremity of this outer bar is a projecting branch going over to the inner surface of the thigh to receive the attachments of the plaster. Both of the lower extremities terminate in a cylindrical roller, over which the tags of the plasters are attached to the two buckles placed at the lower ends of the apparatus.

**Directions for Measuring Figures 4762 and 4763.**

1. Circumference of body between crest of Ilium and Trochanter Major.....Inches.
2. Distance from same point to center of Knee-joint....."
3. Circumference of Thigh two inches above Knee-joint....."
4. Circumference of middle of Thigh...."
5. Mention if for right or left Hip.
6. Sayre's or Sayre's Improved Splints.

Price to Patients.....\$17 00 to 20 00

DEFORMITY APPARATUS.



4764

Fig. 4764.—Hutchinson's Hip-joint Apparatus.

DIRECTIONS FOR MEASUREMENT.

1. Name of patient.
2. Age of patient.
3. Weight of patient.
4. Right or left leg.
5. Length from floor to ankle joint..... Inches.
6. Length from floor to knee-joint..... “
7. Length from floor to trochanter major.... “
8. Length from floor to crest of illium..... “
9. Circumference of calf..... “
10. Circumference of thigh..... “
11. Circumference of pelvis..... “

If you wish us to furnish shoes send the following additional measurements: (Shoes charged extra.)

- a. Length of foot..... Inches.
- b. Circumference of ball of foot..... “
- c. Circumference of instep..... “
- d. Circumference of ankle..... “

Price to Patients, small size.....\$25 to 30 00
 “ “ large size.....30 to 40 00

Fig. 4765.—Washburn's Hip-joint Splint.

This is a simple, straight bar of steel, jointed to a pelvic band. It is intended for poor patients, and has neither racks, pinions, nor screws. Extension is made, after fastening the lower end with adhesive strips, simply by the degree of tensivity to which the lower perineal straps are adjusted. A knee-cap assists in keeping the splint in place.

DIRECTIONS FOR MEASUREMENT.

1. Length from ankle to dorsum illi.....Inches.
2. Circumference of pelvis “

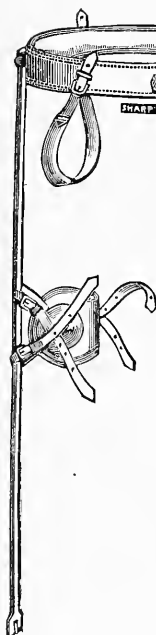
Price to Patients.....\$7 00

Fig. 4766.—Hyde's Hip Apparatus.

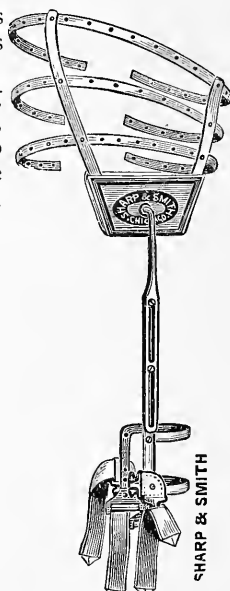
DIRECTIONS FOR ORDERING.

Length from trochanter to knee-joint.
 Circumference of thigh above knee.
 Which leg, right or left?

Price to Patients...\$17 00 to 20 00



4765



4766

DEFORMITY APPARATUS.

Fig. 4767 shows Dr. Louis A. Sayre's Long Extension Splint for Hip Joint disease. This Splint extends from the crest of the ilium to the sole of the foot, and turned under it, from which position extension is made. Adhesive straps are applied to both sides of the whole leg in the usual manner, the inside strap terminating in a buckle at the waist belt, and the outside strap terminating in a short piece of webbing, which is passed through a slit in the apparatus, thence under the foot, and through another slit at the end of the foot piece, and buckled at the inside strap just above the internal malleolus. Thus extension is made from the bottom of the foot. Thus, also, when the patient attempts to walk it is the instrument which strikes the ground and sustains his weight without the least increasing the strain on the adhesive straps.

In fact, it is an ever present crutch, allowing motion of the joint, but not allowing weight to be borne on it. Extension is kept up continually, more surface is allowed for adhesive straps, and only the legitimate strain is ever thrown upon it, never the weight of the body. There is one other advantage which this instrument has over others. Usually the physician has to depend much upon the care and judgment of others. With the splint terminating in the middle of the leg, there is no definite point where it should be. Hence there is no need of getting the most definite directions and calling in the aid of others to know if it is acting well, but the patient *himself* can tell if anything is wrong, The least slipping or relaxing of the straps he must feel, and will have them readjusted.

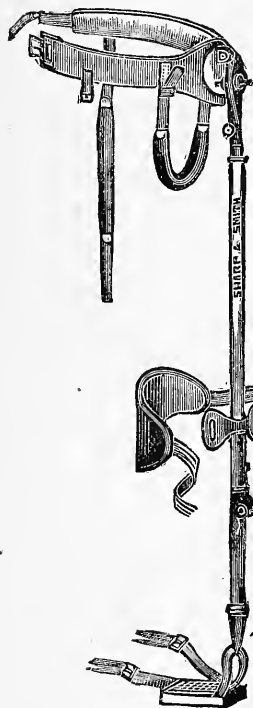


Fig. 4767. DR. LOUIS A. SAYRE'S LONG SPLINT FOR HIP-JOINT DISEASE.

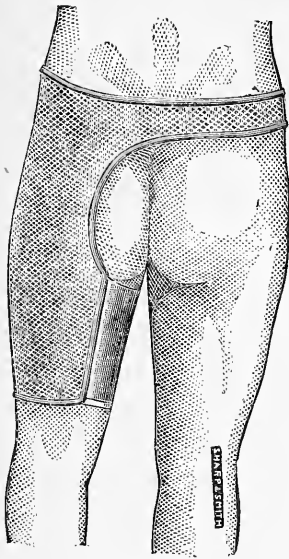
Directions for Measurement.

1. Name of Patient.
2. Age of Patient.
3. Weight of Patient.
4. Right or left Leg.....Inches.
5. Length from sole to crest of Ilium..... “
6. Circumference of Pelvis at Iliac Crests... “

Price to Patients, \$25 00 to 45 00, according to size and finish.

Directions furnished for applying these Apparatuses

DEFORMITY APPARATUS.



4770.

Fig. 4770. Hamilton's Wire Gauze Splint. This consists of an iron wire frame, moulded to the outside or back of the pelvis and thigh, covered with wire gauze. It is kept in place by a pelvic and a broad thigh band, and secured with buckles. Dr. Hamilton advises its use whenever it is desired to secure immobility of the joint, together with exercise in the open air.

DIRECTIONS FOR MEASUREMENT.

- | | |
|--|---------|
| 1. Name of patient. | |
| 2. Age of patient. | |
| 3. Weight of patient (estimated). | |
| 4. Right or left side. | Inches. |
| 5. Crest of ilium to the condyles of the femur..... | " |
| 6. Circumference of the pelvis at iliac crest. | " |
| 7. Circumference at the nates..... | " |
| 8. Circumference of the upper part of the thigh..... | " |
| 9. Circumference of the thigh above the knee..... | " |
| Price to patients..... | \$15 00 |

Fig. 4771. DR. L. A. SAYRE'S WIRE CUIRASS.

See following page for illustration.

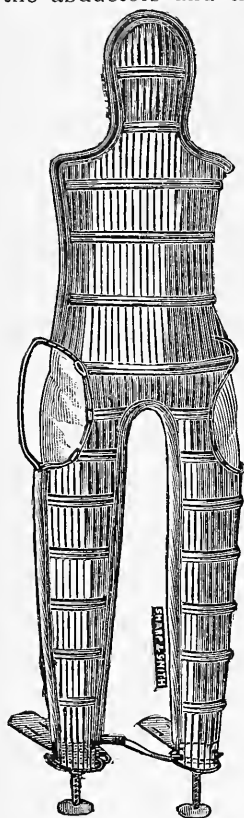
This is used in cases of hip-joint disease of the third stage and excision of the neck of the femur. It consists of strong wire netting, well padded inside.

The cuirass being properly prepared and well padded, the patient is laid in it so that the anus is opposite the opening and free from any possibility of obstruction, when the well leg is the first to be dressed, by making it perfectly straight and screwing up the foot rest until it is brought firmly against the heel of the patient; having a pad between the foot and the rest to absorb the perspiration; the instep is then well padded with cotton or a blanket; and a roller is carried firmly round it and the foot rest, running up over the limb; but before going over the knee a piece of pasteboard, or leather, or several pieces of folded paper, are placed over the leg, knee and thigh, and the roller carried firmly over this extemporized splint for the purpose of preventing the slightest bending of the knee, when the roller is carried up the entire length of the thigh, around the perineum and over the outer arm of the instrument, and several times back through the perineum, and then across the pelvis, by which means the well limb is made a firm counter-extending force.

Two strips of adhesive plaster from two to four inches in width, according to the size of the patient, are then placed upon either side of the operated limb, and secured with a nicely adjusted roller over the foot and up the limb and thigh, as far as the abscesses on it or the wounds will permit, being careful to leave a sufficient length of the plasters at the lower extremity, free for the purpose of applying them to the foot rest when extension is made, and firmly secured by a well adjusted roller. The foot rest is then screwed up to meet the heel of the shortened limb, and these strips of adhesive plaster are brought down around the foot rest and securely fastened. The foot rest is then extended by the screw, slowly and gradually, at times waiting a few moments for the muscles to yield, which have been so long contracted, until the limb is brought

DEFORMITY APPARATUS.

down to its full extent. It sometimes happens that, from long contraction of the abductors and the tensor vaginæ femoris, subcutaneous section of those



tendons and fascia will be requisite before the limb can be brought to its proper position, even after the head of the femur has been removed. After the limb is brought into this position a roller is carried from the foot over its entire surface; a large wad of oakum is plaited around the wound to absorb the discharge, and the roller is carried firmly over the wound, inner surface of the thigh, and around the pelvis. I place great importance upon this latter part of the dressing, as we thereby compress the tissues, and prevent the burrowing of pus, the oakum, which has already been placed in the wound, allowing of free drainage, no matter how tight the roller may have been applied.

Immediately after the patient is dressed in this way, and has recovered from the anæsthetic, he is capable of being stood up against the wall, or riding out in a carriage or boat, and can take his daily exercise in this way. I have, in several instances, had them removed a long distance, some miles, in fact, within an hour of the operation and without the slightest inconvenience or pain. This dressing will probably not require to be changed for from 48 to 60 hours, or until secretion has been formed to moisten the dressings, when the oakum plug can be removed without hemorrhage. If this dressing does not come away easily, warm water injections will readily float it out. The wound made clean, is again filled with Peruvian balsam and dressed as before. After this it may require dressing once or twice a day, according to the amount of discharge, and the child should be removed from the entire instrument as often as is requisite. The well leg should be removed from the instrument at least once a week, and free movements given to all the joints,

ankle, knee and hip, otherwise we may ankylose them, although they are not diseased. The wire cuirass should be used from a month to two months, according to necessity, after which the patient can be put upon the long splint and allowed to exercise, thereby increasing his prospects of perfect motion of the new joint.

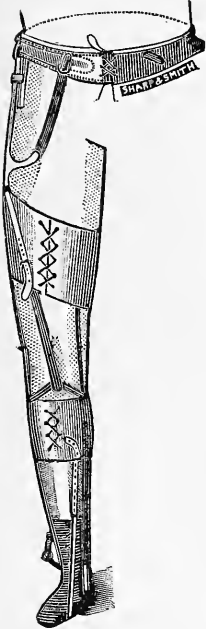
MEASUREMENTS REQUIRED:

- | | |
|--|---|
| 1 Sex of patient. | 10 Circumference of body at nates. |
| 2 General appearance of patient. | 11 Length from axillæ to perineum (back). |
| 3 Distance between base of neck, from one side to the other, passing over the ears and head. | 12 Length from vertebra prominens to perineum. |
| 4 Circumference of head at the eyes. | 13 Length from perineum to sole of foot inside. |
| 5 " " neck. | 14 Length from crest of ilium to sole. |
| 6 Length from top of skull to the vertebra prominens. | 15 Circumference of thigh at perineum. |
| 7 Circumference of body under axillæ. | 16 " " midway between perineum and knee-joint. |
| 8 " " at the waist. | 17 Circumference of calf. |
| 9 " " between crest of ilium and trochanter major. | 18 " " ankle. |
- Price to patients \$20 to \$45, according to size.

DEFORMITY APPARATUS.

Fig. 4772. APPARATUS FOR HEMIPLEGIA.

(Paralysis of one limb.)



4772.

The apparatus represented by Fig. 4772 is for hemiplegia, affecting the limb to the hip joint. We have often had occasion to make it, and found it to answer a good purpose, both as a support, and in aiding the restoration of the mobility of the muscles. It answers to the same description as Fig. 4774, but is carried up to the pelvis. On to a broad steel pelvic band we fasten the artificial muscles for flexion or extension, as the case may require. It may also be worn with good results after treatment of hip joint disease, when, by adding a perineal band, the weight of the body is borne by the apparatus.

SEND THE FOLLOWING MEASUREMENTS.

- | | |
|---|---------|
| 1. Patient's name and description of the case. | |
| 2. Patient's age. | |
| 3. Right or left leg. | Inches. |
| 4. Length from sole of foot to ankle joint..... | " |
| 5. Length from sole of foot to knee joint..... | " |
| 6. Length from sole of foot to trochanter major.. | " |
| 7. Length from sole of foot to crest of ilium.... | " |
| 8. Circumference of calf..... | " |
| 9. Circumference of knee..... | " |
| 10. Circumference above knee..... | " |
| 11. Circumference of thigh..... | " |
| 12. Circumference of pelvis one inch below iliac crests | " |

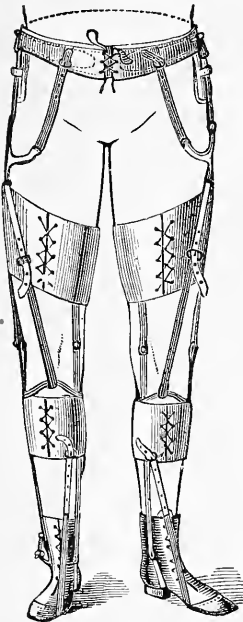
Patients will furnish their own laced shoes, or send the following additional measurements, if they wish us to furnish them:

- | | |
|--------------------------------------|---------|
| a Length of sole of foot..... | Inches. |
| b Circumference of ball of foot..... | " |
| c Circumference of instep..... | " |
| d Circumference above ankle..... | " |

Price to patients, apparatus for one leg, \$30 to \$40. Shoes extra.

Fig. 4773. APPARATUS FOR PARAPLEGIA.

(Paralysis of both limbs.)



4773.

The apparatus for paraplegia answers to the same description as the one for hemiplegia, except that it is double. It is used when both the lower extremities are affected. A general description of the case is necessary to guide us in placing the artificial muscles in the right spot. The directions for measurements are the same as for the apparatus for hemiplegia, Fig. 4772.

Price to patients \$35 to \$70. Shoes extra.

DEFORMITY APPARATUS.

Fig. 4774.—APPARATUS FOR PARTIAL PARALYSIS OF THE LEG OR THIGH.

This cut shows an apparatus in every way applicable in cases of wasting palsy, or when certain groups of muscles become atrophied, losing the power to perform their proper functions.

With this apparatus, the muscles are excited into action, and, aided by artificial substitutes, made of elastic rubber or steel, placed on the instrument so as to gently exercise the affected parts, will recall them to a sense of duty.



4774

Fig. 4774.—Directions for Measurement.

Patient's name and age.

Right or left leg.

Length from sole of foot to ankle-joint Inches.

Length from sole of foot to knee-joint..... “

Length from sole of foot to upper third of thigh. “

Circumference of calf..... “

Circumference of knee..... “

Circumference above knee “

Circumference of thigh “

Send laced shoes. If you wish us to furnish shoes, the following additional measurements are required :

Length of sole of foot.....Inches.

Circumference of ball of foot..... “

Circumference of instep.... “

Circumference above ankle “

If both legs are of equal length, the above apparatus is sufficient ; but if the affected limb is shorter than its fellow, the extension apparatus, Fig. 4776, must be combined with it. This will add \$8 00 to the price stated below.

Price to Patients, Single Apparatus, full length.... \$25 00 to 30 00

“ “ Double “ “ 30 00 to 60 00

(Shoes extra).

Fig. 4775.—SHORT LEG EXTENSION.

We make an Extension Apparatus, Fig. 4775, to correct the Patient's limp, and to guard against the danger of spinal curvature, induced by the result of infantile paralysis, when the bones have not kept pace in growth with those of the corresponding extremity.

It consists of a steel sole and pillars. The steel sole is underlaid with leather, which is riveted to it.



4775. (We make several patterns.)

Fig. 4775.—EXTENSION FOR A SHORT LEG. STEEL SOLE AND PILLARS.

Directions for Measurement.

1. Have the patient (both feet bare) stand up ; place books or blocks of wood under the short foot until the shoulders and pelvis are in horizontal plane; then measure these books or blocks, which will be the height required for extension.

2 Send us a well-fitting shoe.

3. Right or left leg.

If we are to furnish shoes, send the measure as directed.

Price to Patients for Extension.....\$9 00

DEFORMITY APPARATUS.

Fig. 4776 Represents a Cork or Willow Wood Soled Shoe, to be Applied to a Limb that is Shorter than its Mate.

The importance of this Shoe is that it gives stability. It thus allows of the Patient's body being sustained with ease in walking. The cork or willow sole is made of such height as to correspond with the length of the other leg.

In measuring for this Shoe, please observe same directions as with Fig. 4775.

FIG.
*4776 Price to Patients, Willow Extension..\$ 5 00
*4776 " " Cork " .. 10 00



Fig. 4777.—BRACE FOR PARALYSIS AND SHORTENING OF LIMB.

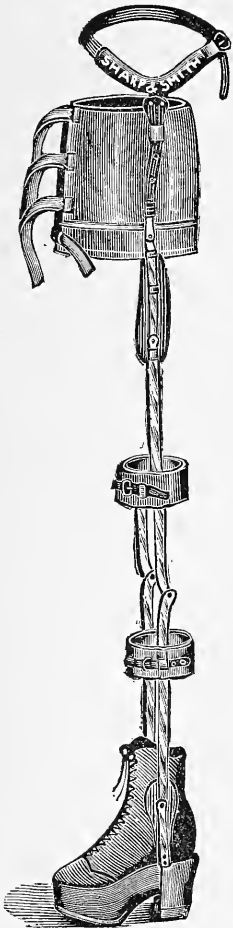
Price to Patients.....\$30 00 to 50 00
(Corset and Shoes extra.)

This illustration shows a Brace devised for Patients having hip-joint disease, together with partial paralysis and slight spinal curvature, and consequent shortening of the limb. The Brace is provided with a leather-covered cork sole extension, giving the proper length to the deformed limb, as well as assisting in giving proper and even support to the spine. This Brace gives power and force to the paralyzed limb, allowing the physical force to control the parts more effectively than could be otherwise done, thereby assisting nature to more fully perform its functions, thus preventing the wasting away of the limb. When desired, we furnish either a special Corset made to order, or one of the perforated leather ones, shown by Figs. 4705 and 4706, page 767.

Measurements Required.

Sole of shoe to ankle-joint	Inches.
Ankle to knee-joint	"
Knee to hip-joint.....	"
Hip-joint to iliac crest....	"
Circumference at ankle.....	"
Circumference at calf.....	"
Circumference at thigh	"
Circumference at hip-joint over iliac crest.....	"

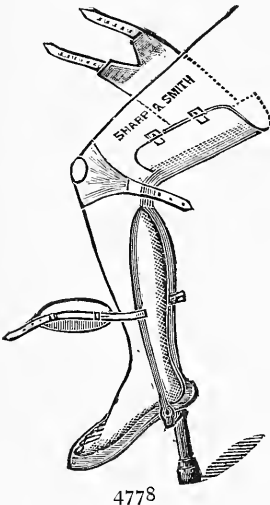
Send shoe, giving full particulars of case, that we may be assisted in making a correct fitting, as well as acting brace.



4777

DEFORMITY APPARATUS.

Fig. 4778 represents an Apparatus for cases of Shortening. It is most useful when there is a permanent shortening of the limb resulting from ankylosis. It consists of a padded thigh band, secured to the limb with straps and buckles. The band is attached to a strong metal stem by a hinge. The stem is open in the center for lightness, and has a foot plate fastened below, into which is sunk a tube with a rubber bottom, which fills up the space between the foot and the ground. A strong knee cap passes over the patella, and, with the foot and ankle straps, secures the leg firmly to the apparatus. When this instrument is worn the weight is received by the thigh band and transmitted thence to the ground, so that the knee is guarded from all strain, while the tendency to spinal deformities is arrested, which is always the result of a shortened lower limb.



4778

Fig. 4778. Directions for Measurement.

1. Patient's name.
2. Right or left Leg.
3. Length from Sole of Foot to Knee-joint..Inches.
4. Length from Knee-joint to upper third of Thigh..... " "
5. Circumference of the Thigh..... " "
6. Circumference of the Calf..... " "
7. Degrees of the angle of flexion..... " "
8. Distance from the heel of the Patient's Shoe to the ground when standing erect " "

Price to Patients.....\$35 00

Fig. 4779 represents Sharp & Smith's Apparatus for Ankylosis. There are many cases where the joint is free from disease, but where at the same time, it assumes a distorted condition. In these cases a mechanical extension of the contracted muscles is so clearly indicated as a means of curative treatment, that anything which tends to facilitate this action may be considered a boon. This instrument consists of two lateral rods connected with thigh and calf bands, and a joint at the knee, a screw connecting the calf and thigh bands, hinged so as to admit of extension. By examining the drawing, it will be seen that the greatest amount of resistance must be found just at the anterior surface of the knee, over which the knee cap passes; secondly, against the calf; and thirdly, at the thigh. The center joint becomes the fixed point of rotation for the thigh, and by levers thus diminishing the angle of the knee but, as the tibia is acted upon by the lower band and knee cap in such a manner that it acquires a disposition to rotate backward around its own center, and as the same thing cannot occur at the thigh because it is firmly fixed to the pelvis, posterior laxation of the head of the tibia must take place, although this is generally of so small an extent as to be hardly noticeable. For illustration see next page.

DEFORMITY APPARATUS.

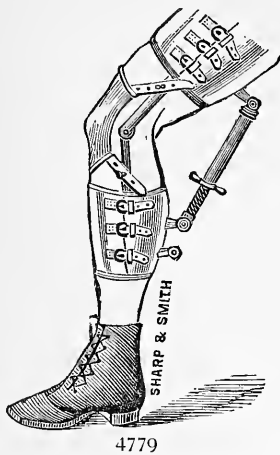


Fig. 4779.—SHARP & SMITH'S APPARATUS FOR ANCHYLOSIS. (We make several Patterns.)

(For description of this Apparatus, see preceding page.)

Directions for Measurement.

1. Right or left Leg.
2. Patient's name.
3. Patient's age.
4. Length from floor to Ankle-joint.....Inches.
5. Length from floor to Knee-joint..... “
6. Length from floor to upper third of Thigh “
7. Circumference above Ankle..... “
8. Circumference of Calf..... “
9. Circumference of Knee..... “
10. Circumference above Knee..... “
11. Circumference of Thigh..... “

When long apparatus, extending to bottom of foot is wanted, and you wish us to furnish shoe, send the following additional measures: Inches.

- a. Length of sole of foot..... “
- b. Circumference of ball of foot..... “
- c. Circumference of instep..... “
- d. Circumference above ankle..... “

Price to Patients for Apparatus.....\$20 00

Fig. 4780.—MARKLEY'S PATELLA SPLINT.

This splint is intended for the treatment of fractures of the patella and dislocations of the knee joint, and may be utilized in cases of fractures either just above or below the knee.

It consists of two well padded iron troughs connected with hinges and circle stop so that it may be used straight, or flexed to any desired angle.

Traction on the pads may be made by means of the two long screws, which are shown on the under side of the splint, and turned by a wrench. Each screw is provided with a sliding nut, which moves in a slot cut in the trough and to which is attached the traction bands CC. The bands BB assist in holding the pads firmly in place, while the bands AA hold the splint to the limb. As this splint can be made useful in many ways it should be in the hands of every practitioner.

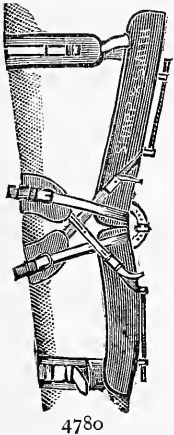


Fig. 4780. Directions for Measurement.

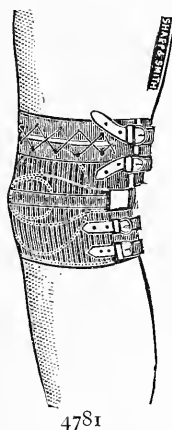
1. Length from above Ankle to upper third of Thigh. Inches.
2. Right or left Leg..... “
3. Circumference of Thigh..... “
4. Circumference of Calf..... “

Price to Patients.....\$12 00

DEFORMITY APPARATUS.

Fig. 4781.—KNEE-CAP FOR AFTER-TREATMENT OF FRACTURED PATELLA.

Authorities on surgery say that great care must be taken not to rupture the ligaments of the newly formed union, which so often happens after recovery of the patient from fractured patella. For the purpose of guarding against such a recurrence, we make the apparatus shown, Fig. 4781. It consists of a knee-cap made of buckskin or satin jean, which is adjustable to the knee by buckles or laces. It is provided with a pair of coaptation pads, to retain the newly united patella in place. These pads are arranged to approximate by drawing on laces, as shown in the upper border of the cap, represented by Fig. 4781. It affords the patient exercise of the knee-joint, the best guard against the danger of ankylosis, at the same time preventing any undue strain on the newly united upper fragment of the patella.



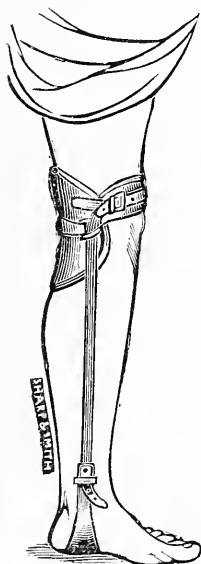
4781

Directions for Measurement.

1. Circumference above Knee.....Inches.
2. Circumference of Knee..... “
3. Circumference below the Knee..... “

Price to Patients..... \$5 50

Fig. 4782.—LEWIS' APPARATUS FOR TREATMENT OF FRACTURE OF THE PATELLA.



4782

This apparatus consists of a broad pad, resting on the popliteus, to keep the knee extended, and a narrow pad, fitting the upper border of the patella. A strap connected with the latter one is first passed through a ring attached to the popliteal pad, then continued down the leg on each side, being finally buckled to a lined foot pad. This makes the foot a fixed point for extension, and the ring through which the strap passes gives it also a direction backward, maintaining a firm hold of the upper fragment of the patella, whilst the lower fragment is readily kept in place by a strip of adhesive plaster.

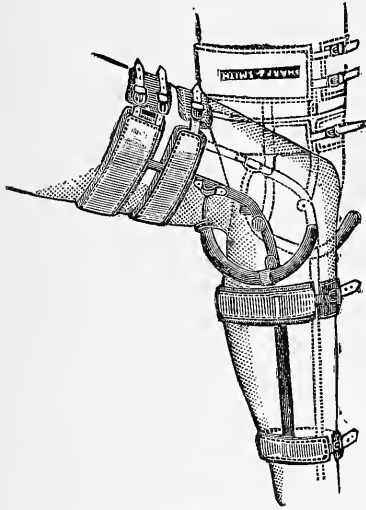
Directions for Measurement.

1. Circumference above knee.....Inches.
2. Length from sole of Foot to Knee..... “

Price to Patients..... \$6 00

DEFORMITY APPARATUS.

Fig. 4783.—HOOPER'S KNEE EXTENSION APPARATUS.



4783

This apparatus consists of a band encircling the thigh, of another for the calf, and of one above the ankle. These are fastened to two lateral shafts provided with joints at the knee. Two semi-circular brass tubes, fastened to the lower calf shafts, contain each a spiral spring, acting on bows fastened to the thigh shaft, thus exerting constant elastic extension, which is sure to overcome muscular contraction soon.

Directions for Measurement.

Circumference above knee.....	Inches.
“ at knee.....	“
“ below knee.....	“
“ above ankle.....	“
Length from above ankle to knee..	“
“ knee to upper third of thigh.....	“

Price to Patients.....\$35 00

Fig. 4784 represents our Apparatus for Knock Knee (*Genu-Valgum*). This deformity, when occurring in young children, is attended with very grave consequences, inasmuch as it rarely happens that both legs yield in the same ratio, or present the same angle of inversion. This deformity is commonly complicated with *Talipes Valgus*. Sometimes the latter appears as the pre-existing impediment, Knock Knee having been superadded in time. A careful examination of the trouble, under a proper degree of extension and counter-extension of the extremity, will disclose, as the direct cause of Knock Knee, a marked contraction of the external duplicature of the vagina femoris inserting at the capilulum fibulae, and occasionally a contraction of the biceps femoris, which involves a disturbance of the normal perpendicular position of the entire leg, resolving it into an angle. In cases of simple ligamentous weakness, instruments furnished with knee joints are very useful, as they aid in sustaining the perpendicular position of the limb; but where there is deflection to any serious extent, nothing will be able to overcome the deformity but an apparatus without a joint at the knee, extending from the pelvis to the ground, as represented in Fig. 4784. It consists of two lateral stems, secured to the boot by copper rivets. A padded band encircles the body, and a knee cap secures the knee to the lateral stems, and padded straps above the ankle and around the calf and thigh combined, direct the force outward. This instrument is exceedingly light, and, as it admits of free muscular motion, answers admirably in these cases.

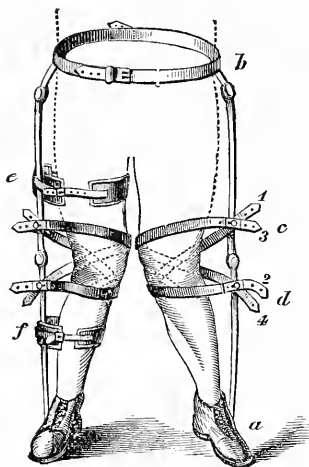
For illustration of Fig. 4784, see following page.

DEFORMITY APPARATUS.

Fig. 4784.—APPARATUS FOR KNOCK-KNEES. (GENU-VALGUM.)

(For description of these Braces, see preceding page.)

Directions for Measurement.



4784

1. Patient's name.
2. " age.
3. Length from floor to ankle joint....Inches.
4. " " " knee joint.... "
5. " " " hip joint..... "
6. " " " iliac crests..... "
7. Circumference of pelvis one inch below
iliac crests..... "
8. Circumference of thigh at *c*..... "
- 9 " leg at *d*..... "
(A stick to be placed on the outside
of the limb, and the above two
measures taken around both.)
10. Right, left, or both feet?
If you wish us to furnish shoes, send the fol-
lowing additional measurements (shoes extra:)
11. Length of sole of foot.....Inches.
12. Circumference of ball of foot..... "
13. " instep..... "
14. " above ankle..... "

Price to Patients for pair Braces (according to size).....\$30 00 to 40 00

Fig. 4785 represents Sharp & Smith's Apparatus for Bow Legs. Few distortions are more common, and yet they do not receive that attention which they demand. Parents, not understanding the cause of the deformity, think it will disappear as the child advances in years. Those who consider what influence one class of deformities will exert in the production of others, know that an incurvation of the tibia may, if neglected, lead to a loosening of the ligamentous attachments of the knee joint, disturbance of the functions of the hip joint, and even deflection of the spinal column.

The direction assumed by the tibia may be lateral, anterior, or a combination of both.

This deformity is primarily due to a softening of the bones, the result of a change in the chemical properties of the component ingredients of the osseous structure, viz., a diminution of earthy matters.

This deformity requires constitutional as well as mechanical treatment.

From the softened condition of the bones, the legs are unable to bear the weight of the body, unaided by artificial means.

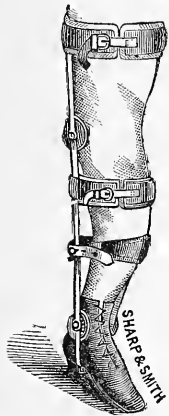
Our instrument is fastened to the sole of the shoe, consisting of two lateral rods extending above the knee, with joints at ankle and knee, and two round pads for the condyles to bear against the rods. The bars are connected by padded bands above and below the knee. On the side of the concavity we establish an artificial base, with two studs on the lateral bar, to which are attached elastic straps with buckles and sliding pad. These straps and pad are placed inside of the lateral bar, on the side of the convexity, and buckled on the concave side of the limb; by this means we get an extension of the tibia and fibula, and a depression of the arc by the elastic pressure, until the limb has been brought into a normal shape.

For illustration of Fig. 4785, see next page.

DEFORMITY APPARATUS.

Fig. 4785.—BOW LEG APPARATUS.

(For description of this Apparatus, see preceding page.)

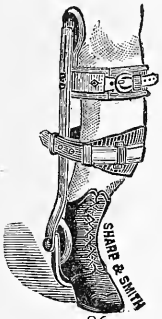


4785

Directions for Measurement.

1. Patient's name (or sex).
 2. Which leg (or both) ?
 3. Length from floor to ankle joint.....Inches.
 4. " " to knee " inner side..... "
 5. " " to " " outside..... "
 6. " " to upper third of thigh..... "
 7. Circumference of ankle..... "
 8. " calf..... "
 9. " upper third of thigh..... "
- Patients will furnish their own laced shoes, or send us the following additional measurements, if they wish us to furnish them:
10. Length of sole of foot.....Inches.
 11. Circumference of ball of foot..... "
 12. " instep..... "
 13. " above ankle..... "

Price to Patients, per pair Braces.....\$20 00



4786

Fig. 4786.—SHORT BOW-LEG APPARATUS.

Directions for Ordering.

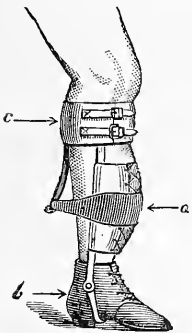
1. State which leg, right or left, or both?
2. Distance from floor to ankle joint.
3. " " " knee "
4. Circumference at calf.

Send laced shoe to fit, or give size of foot. The measurement for length of brace should be taken inside of limb.

Price to Patients, per pair Braces.....\$15 00

Fig. 4787.—APPARATUS FOR ANTERIOR CURVATURE OF THE TIBIA.

Directions for Measurement.



4787

1. Patient's name (or sex).
 2. " age.
 3. Anterior curvature of the tibia.
 4. Which foot?
 5. Length from floor to ankle joint.....Inches.
 6. " " " garter (c)..... "
 7. Circumference of calf..... "
- If you wish us to furnish shoes, send the following additional measurements:
- a. Length of sole of foot..... "
 - b. Circumference of ball of foot..... "
 - c. " instep..... "
 - d. " above ankle..... "

Price to Patients, Single Brace....\$12 00 to 18 00

DEFORMITY APPARATUS.

Fig. 4788 represents Dr. Lewis A. Sayre's instrument for extension of the Ankle Joint. This instrument consists of a firm steel or hard rubber plate, shaped to the sole of the foot, with a hinged joint at the heel, attached to a rod slightly curved at the bottom, and extending up the back of leg to a point near the knee.

Over the instep is an arch like the top of a "Stirrup" with a hinged joint at its summit, from which springs another rod, which runs up the front of the leg, and is of the same length as the other.

These rods are made with ratchet and cog, for extension, and connected at the top by a band of sheet iron, on one side of which is a hinge, and on the other a lock like that of a dog collar.

The instrument is applied with Canton flannel, adhesive plaster (made expressly for extension purposes), cut in strips about one inch in width, long enough to reach from the ankle to a point near the tuberosity of the tibia, and placed perpendicularly all around the limb.

The plaster is secured in its position, to within an inch of its upper extremity, by a well adjusted roller bandage.

The instrument is then applied, and the foot firmly secured by a number of strips of adhesive plaster to prevent its slipping, and the ends of the plaster at the top of the instrument turned over the collar, which has been previously locked just tight enough to be comfortable, and secured by a turn or two of the bandage. A roller should be carefully applied over the foot to prevent the plaster from slipping.

This Apparatus was applied in the presence of the class at Bellevue Hospital by Dr. Sayre, on the 24th of February, 1864, in the manner above described. The patient was a sixteen year old girl; as soon as the instrument was properly adjusted, she stood upon her feet, without the aid of crutch or cane, for the first time in two years, and without any pain whatever, but the instant the screws were shortened, the pain was intense.

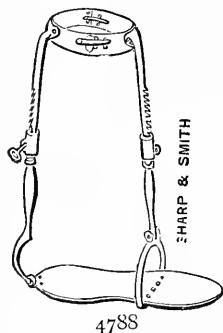


Fig. 4788. SAYRE'S ANKLE EXTENSION
APPLIANCE.

Directions for Measurement.

1. Length of the sole of the foot.....Inches.
2. Height from sole to two inches below knee... "
3. Circumference of calf..... "
4. " instep..... "

Price to Patients.....\$22 00

DEFORMITY APPARATUS.**APPARATUS FOR WEAK LIMBS.****Directions for Measurement.**

1. Patient's name.
2. " age.
3. Length from floor to ankle joint. Inches.
4. " " " knee " "
5. " " " hip " "
6. " " " iliac crests. "
7. Circumference of pelvis 1 inch below
iliac crests "
8. Circumference of thigh. "
9. " calf "

Send well fitting laced shoe, or if you wish us to furnish them, the following measurements:

- a. Length of sole of foot. Inches.
- b. Circumference of ball of foot. "
- c. " instep. "
- d. " above ankle. "

Price to Patients, adult's size (shoes extra) \$35 00 to 70 00
 " " children's " " 25 00 to 35 00

Fig. 4789.—APPARATUS FOR OVER-RIDING TOES.

The apparatus for over riding, or "hammer toes," consists of a steel sole, arranged with slits corresponding to the spaces between the toes. A strap of webbing is passed through these slits and over the contracted toe (or over each and all, as the case may require), and buckled or tied under the sole, tense enough to straighten the toe. This apparatus is kept in place by a thin silk, linen, or cotton covering, laced to the instep, and may be worn in an ordinary shoe.

Directions for Measurement.

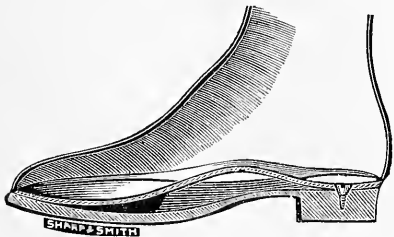
Place the foot on paper and trace with pencil.

Circumference of ball of foot.
 " instep.



4790

Fig. 4790 Price to Patients, Apparatus for one foot. \$ 7 00 to 15 00
 " " " " two feet. 14 00 to 30 00

Fig. 4791.—ECLIPTING SPRING FOR FLAT FOOT.

4791

Fig. 4791 Price to Patients. \$4 50 to 6 00

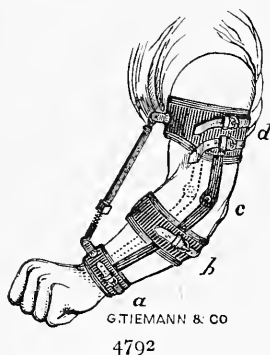
Consists of a spring tempered steel sole, constructed of the exact shape of the arch of the foot in its normal position. This sole is placed in the shoe and fastened at the heel by a screw, having the anterior portion free to move as the weight of the body is thrown upon it.

Directions for Measurement.

1. Send a well fitting strong laced shoe.
2. Send a plaster cast of the foot with its arch elevated to the normal position.

DEFORMITY APPARATUS.

Fig. 4792.—APPARATUS FOR PARTIAL ANCHYLOSIS OF ELBOW JOINT.



This consists of a broad band at the upper portion of the arm, a band just below the elbow joint, and one at the wrist; connected with these is a steel bar running parallel with the arm, having a joint at the elbow. Connected with the wrist band and the upper arm band is a screw extension attachment; by gradually turning this screw, the adhesions are broken up, and patient soon acquires the full use of the ankylosed member.

Apparatus for Ankylosis of the Elbow Joint.

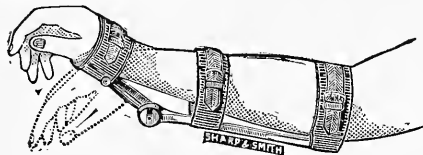
DIRECTIONS FOR MEASUREMENT.

1. Right or left arm?
2. Length from wrist to elbow joint (*a* to *c*)..... Inches.
3. Length of wrist to axilla (*a* to *d*)..... "
4. Circumference of wrist (*a*)..... "
5. Circumference of forearm (*b*)..... "
6. Circumference of elbow joint (*c*)..... "
7. Circumference of arm (*d*)..... "

Price to Patients \$18 00

Fig. 4793 represents an Apparatus for Contracted Wrist. It is intended for correcting cases of flexed wrists, caused either by contraction of the muscles or by partial ankylosis.

The cut fully shows the manner in which force is applied, and, if well fitted, good results can always be obtained.



4793

Directions for Measurement.

1. Circumference of arm just below the elbow.
2. Circumference of arm between wrist and elbow.
3. Circumference of hand between wrist and thumb joint.
4. Length of forearm to wrist.
5. Length from wrist to thumb joint.

Price to Patients (according to size) \$20 00 to 30 00



4794

Fig. 4794.—Darrach's Patent Wheel Crutch.

\$50 00 to 85 00.

DIRECTIONS FOR MEASUREMENT.

Width of body in *direct* line from arm-pit to arm-pit; distance from arm-pit to floor. To measure width of body correctly, place a stick under each arm, close to the body, projecting in front *parallel*, and take distance between (not including curve of breast.)

Prices of Crutches (Fig. 4794), designated by distance from arm-pit to floor.

16 to 25 inches.....	\$50 00
25 to 35 "	60 00
35 to 45 "	70 00
45 to 55 "	85 00

Sunshades and Fixtures, from \$6 00 to \$12 00.

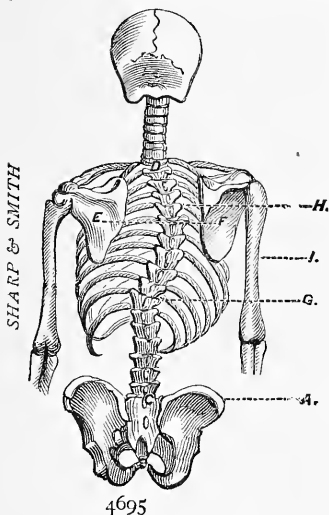
SPINAL DEFORMITIES AND APPARATUS.

In cases of Spinal Disease, when we cannot have the patient for the proper adjustment of the instrument, if practicable, a plaster of Paris cast of the trunk would be desirable to model the apparatus from, in order to obviate the liability to error, and to insure a proper application and save the medical attendant much alteration and manipulation. In order to show the deformity, the attendant may place a plate of glass upon the spine of the patient, and so adjust it as to cover the whole trunk, taking care that the patient stands with his spine in the medial line of the plate as straight as possible (heels together). By means of a delicate brush and some paint the contour may be accurately drawn upon the glass. By this means the curved lines of the spine and its deviation can be marked. This done, a large sheet of paper must be placed on the glass and the lines of the body transferred thereto. With the above contours, together with a description of the case, the following measurements are required, viz.: Circumference of the body at the crest of the ilium and under the axillæ, and the length from the crest of the ilium to the axillæ.

Inasmuch as the human body is purely mechanical in the formation and arrangement of all its parts, from the largest organs to the finest cells, it follows that any variation from the primitive arrangement of any one of these must involve corresponding morbid manifestations, not only in the parts immediately concerned, but also in those which are associated with them, either by juxtaposition, continuity or function.

The equilibrium of the spine is constantly being disturbed by the irregular distribution of weight, or from habit or indolence, an indisposition to sit erect, and the constant strain unduly exercised against the weakened ligaments, added to the gravital weight of the head and shoulders, finally induce a permanent change of form.

Directions for Measuring for Figs. 4696, 4697, 4698, 4699 and 4703.



1. Patient's name (or sex).
2. " age.
3. " weight (estimated.) Inches.
4. Distance from sacro-lumbar articulation to vertebra prominens... (C to D)
5. Distance from sacro-lumbar articulation to first vertebra involved. (C to G)
6. Distance from sacro-lumbar articulation to last vertebra involve.. (C to D)
7. Distance from crest of ilium to axilla, right side..... (A to H)
8. Distance from crest of ilium to axilla, left side..... (A to H)
9. Distance from the center of one scapula to the center of the other. (E to F)
10. Horizontal (transverse) diameter of the protuberance.
11. Circumference of the chest under axilla..... (H)
12. Circumference of pelvis, one inch below the iliac crests.

In addition to the above measures, please state if the *Convexity of the Curve is to the right or left side.

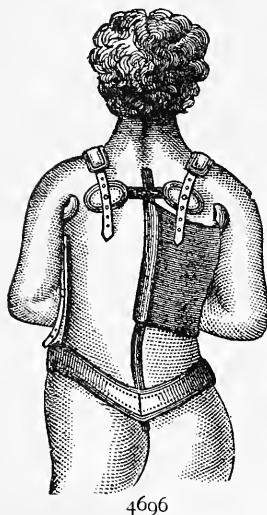
*In the Figure of the accompanying Skeleton it is to the right.

WE MAKE A SPECIALTY OF DEFORMITY APPARATUS.

DEFORMITY APPARATUS.

SPINE BRACE FOR LATERAL CURVATURE.

(SCOLIOSIS.)



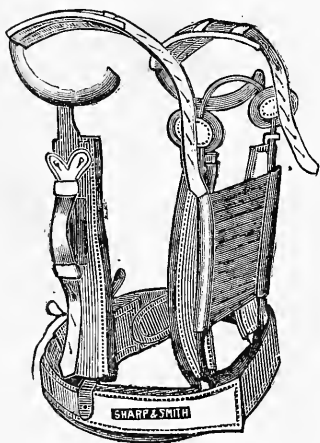
4696

Fig. 4696. To the pelvic belt are attached laterally two elastic crutches, as in the Brace for Pott's disease, to relieve the spine of the weight of the trunk, posteriorly a single strong, upright bar, holding a couple of adjustable pads for the scapulae, and just below, a leather band of proper width (attached by a number of small brass buttons), terminating in a strong, elastic India rubber webbing. This band is passed around the protuberance obliquely, and buttoned to the pelvic belt in front an inch or two beyond the lines alba, and will be found to exercise a gentle, but continuous elastic pressure, at the same time rotating the ribs around their vertebral axes, thus unfolding the helical curve.

Directions for measuring, see Fig. 4695, page 761.

Price to Patients.....\$35 00

SPINE BRACE FOR POSTERIOR CURVATURE.



4697

Fig. 4697. "It is intended to afford an entirely elastic continuous and gentle pressure to the parts to which it is applied, giving to the patient, along with adequate support, an easy and comfortable feeling. It is made of light tempered springs, and softly padded wherever it comes in contact with the body.

"The belt below passes around the pelvis, and the principal weight is thrown upon the gluteal region. The front portion is broad, so as to compress the protruding abdomen. Two upright parallel bars pass on each side of the posterior elevation, having a portion of silk elastic rubber between them, which gives a constant pressure upon the protuberance. If the latter is inflamed, a portion cut out of the elastic material prevents direct pressure upon the extremity of the bone.

Upon these side bars are attached two elliptic and padded springs, yielding to every pressure, and adapting themselves to the sides of the spinal column and keeping the body in an erect position. These are removed or applied by a very simple process. The two padded crutches are elastic, and elevate the body by pressing mostly under the margin of the scapula, thus obviating any tendency to pressure upon the axillary veins. They are constructed in such a manner that the equilibrium of the body can be restored in case one shoulder is depressed."

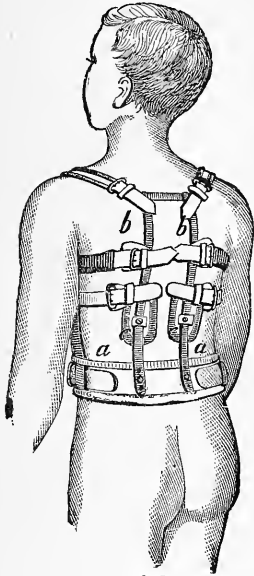
Directions for measuring, see Fig. 4695, page 761.

Price to Patients.....\$35 00

DEFORMITY APPARATUS.

WASHBURN'S BRACE FOR POSTERIOR CURVATURE OF THE SPINE.

(Potts' Disease.)



4698

Fig. 4698. This Brace was designed and first used in the St. Luke's Hospital, New York, by Dr. Charles Washburn, and has since, as then, been very successful.

"Success with this apparatus depends entirely upon the faithfulness with which it is kept adjusted to the spine of the patient. It is only necessary that a gentle pressure should be maintained if it is constant. As the spine approaches its normal shape the curve of the brace will require to be altered from time to time. The steel has a soft temper, so that it will take the form in which it is bent when considerable power is applied, but will be sufficiently elastic for the purposes of this apparatus. With children's braces the necessary bending is readily accomplished by hand.

"In the accompanying figure *aa* is a steel band which passes half way around the pelvis, just above the trochanters, *bb* are two flat bars of steel, parallel to each other, and curved upon their flattened sides to the form of the spine to which the apparatus is fitted. These bars are curved a little less than the spine, so that when secured in position their elasticity will constantly operate to rectify the spinal curve. The cross bar at the upper ends of the parallel ones is firmly riveted to them, and is to cross the back just above the spines of the scapulæ. At the ends of this bar are affixed buckles to receive the shoulder straps; *cc* are two movable pads which slide upon the bars to which they are attached—these are best stuffed with chopped cork. These compresses are to be brought one upon each side of the projecting knuckle of spine and secured firmly by means of the screws provided for that purpose. Buckles are attached to various parts of the brace, by means of which it is secured to the front part of the apparatus, which consists, as shown, of a piece of twilled muslin, or other strong material, which covers the chest and abdomen, and is provided with straps. Such parts as are in contact with the body are carefully padded."

Directions for measuring, see Fig. 4695, page 761.

Price to Patients.....\$15 00 to 20 00

DEFORMITY APPARATUS.

Fig. 4699.—DAVIS' APPARATUS FOR CARIES OF THE SPINE.

[Extracted from Hamilton's Principles and Practice of Surgery.]

"The principles which ought to govern the construction and application of mechanical supports, in cases of caries of the spine, are the greatest degree of lightness, compatible with the requisite firmness, accurate adaptation; pressure in opposing directions upon the spinal column, sufficient to insure support and steadiness, and to transfer, in some degree, the weight of the spinal column from the affected vertebræ to their corresponding oblique processes, while at the same time these vertebræ shall not separate from each other in a manner to defeat the end desired, namely, their final union and consolidation by callus; the pressure being so applied on either side of the spinous processes, and not upon the processes themselves, so that it shall cause the least pain and not endanger ulceration or excoriation, giving support to the tumid or pendulous belly; interfering in no way with the free motions of the arms or legs. These indications we find more or less completely fulfilled in the apparatus of Davis, Biggs or Taylor."



4699

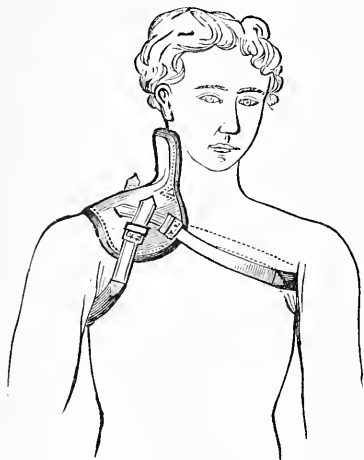
band; to this are attached two upright parallel bars of thin well tempered steel, shaped to fit the spine and curvature, and having two pads placed in a proper position to exert a gentle pressure on the protuberance. The tops of these bars are held in place by a band passing around the chest, to which is attached a strong piece of cloth which forms the front of the brace.

Directions for measurement the same as for Tiemann's brace, No. 4695.

Directions for measurement, see Fig. 4695, page 761.

Price to Patients.....\$20 00

SHARP & SMITH.



4700

Fig. 4700.—WRY NECK APPARATUS.

(We make several patterns.)

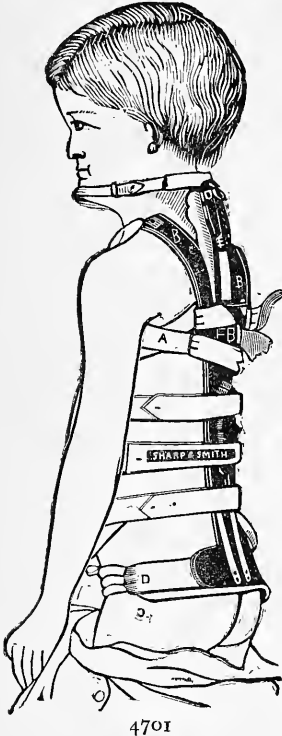
Directions for Measurement.

1. Patient's name (or sex).
2. " age.
3. Head leans to *right* or *left* side?
4. Circumference of the neck..... Inches.
5. Length of the neck at side, from
clavicle to mastoid process..... "
6. Circumference of chest under axilla

Price to Patients.....\$5 00

DEFORMITY APPARATUS.

Fig. 4701.—Dr. Chas. Taylor's Apparatus for Potts' Disease of the Cervical Vertebrae and Chin Rest Attachment Applied.



4701

In this apparatus we have direct pressure on the transverse processes of the spinal column, with the additional suspension necessary in the mechanical treatment of such diseases. The object of this arrangement is, that the parts may be directly acted upon, and that the pressure shall be made directly upon the parts where most needed, and where the disease can be best controlled.

Pads are made of chamois skin, filled with hair, making them at once soft, durable and flexible. If desired these pads can be made of rubber, especially molded to the parts involved, which presents at once a smooth and easy acting surface. To the brace is attached by buckles (as seen in cut), a broad, substantial belt crossing the abdominal parts and chest, assisting in holding the apparatus in a proper position.

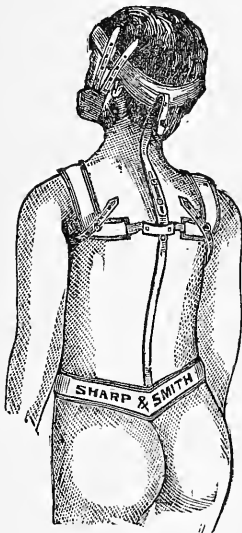
Directions for Measurement.

Give as full particulars of the case as is possible, whether the curve is to the right or left, and if convenient, a plaster cast of the patient's back; if not possible, take a piece of soft lead, mould it to the back, being particular to give all of the indentations or prominences caused by the disease, covering the full length of the spine, and trace the curves on a paper to be sent with order; circumference of the body between crest of ilium and axilla.

Circumference of body one inch below crest of ilium. Distance from center of one scapula to center of the other.

For the additional attachments controlling the cervical portion of the spine, give the following measurements: Vertebra prominens to base of head. Circumference from vertebra prominens around chin, giving particulars as to formation of inferior maxillary.

Fig. 4701. Price to Patients.....\$30 00 to 50 00



4702

Fig. 4702.—Dr. Thomas M. Markoe's Brace for Torticollis.

DIRECTIONS FOR MEASUREMENT.

1. Patient's name (or sex).
2. " age.
3. " weight.
4. Distance from sacro-lumbar articulation to vertebra prominens..... Inches.
5. Distance from sacro-lumbar articulation to base of skull..... "
6. Circumference of pelvis one inch below iliac crest..... "
7. Circumference of chest under axilla..... "
8. Circumference of the head..... "

Price to Patients.....\$35 00 to 45 00

DEFORMITY APPARATUS.

Sharp & Smith's Corset Brace for Posterior and Early Stages of Lateral Curvature.



Fig. 4703—Front View.

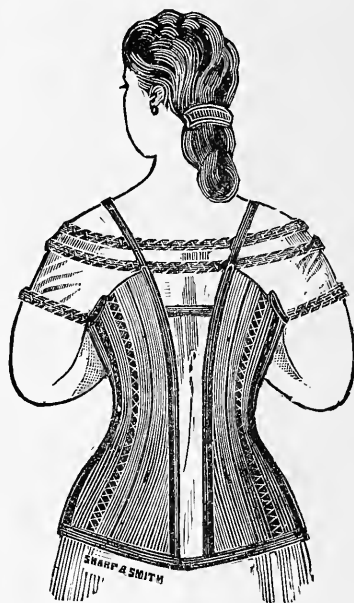
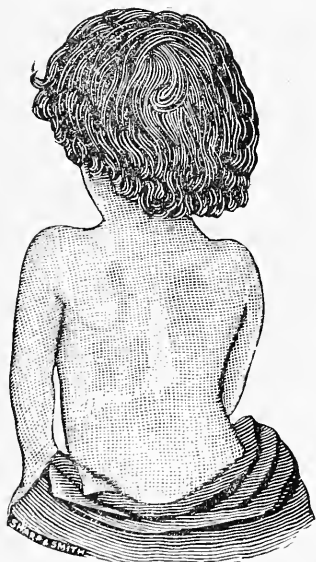


Fig. 4703—Back View.

Directions for measuring, see Fig. 4695, page 761.

Price to Patients.....\$25 00



4704

In the accompanying illustrations, Figs. 4704, 4705, 4706, we show the application of a perforated leather jacket to a case of antero-posterior curvature of the spine combined with a slight inclination to lateral curvacuture. The brace consists of a leather corset accurately moulded to the body and properly strengthened with well-tempered steel stays, shaped to conform to the contour of the body when in a normal condition, thus furnishing special support to the vertebræ involved.

Owing to its funnel shape above the waist and by means of crutches placed under the arms, it produces partial suspension, which not only prevents the further spread of the disease, but completely controls the disposition to inflammation so common to these cases.

Fig. 4704 shows the condition of the patient when presented for treatment. Fig. 4705 gives a front view of the corset after application. Fig. 4706 presents a rear view of the same, showing the steel stays bearing upon the transverse processes of the vertebræ.

These braces are a great improvement over plaster of Paris jackets, being much lighter, more comfortable and cleaner, besides being easily removed.

DEFORMITY APPARATUS.

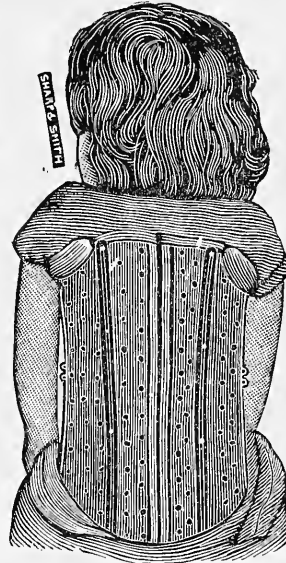


4705.—Front View.

They are perforated, permitting the free passage of air, and allowing the body to throw off its natural exudations.

We have applied a large number of them within the past two years, and so far as we have been able to learn, every one of them has proven satisfactory to both physician and patient.

Better results have been obtained by sending the patients to us, that we may



4705.—Back View.

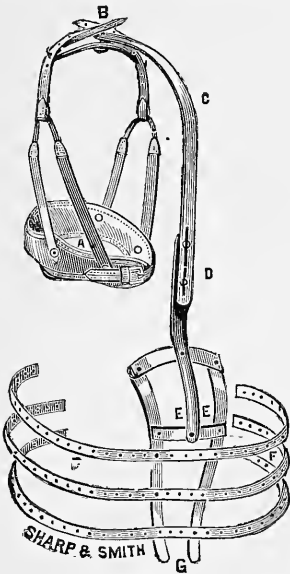
apply the brace ourselves, but where this is not feasible we can secure a fit if furnished with a well-fitting plaster Paris jacket, having the diseased portion and all prominences carefully marked on the inside of the jacket. This plaster Paris jacket, must, however, be applied while the patient is suspended by Dr. Sayre's or some similar method. No measurements are necessary other than the careful marking of the jacket, which should include the iliac crests and extend to or above the axillæ. Price to Patients.....\$25 00 to 40 00

SAYRE'S JURY MAST.

Directions for Measurement.

1. Bend a flexible strip of lead to the contour of the back, commencing at the top of the head; carry along the spine to the sacrum. Carefully remove and trace on paper; mark the position of the scapulæ, iliac crests and disease.
2. Circumference; top of head around chin..Inches.
3. " around cranium..... "
4. " pelvis, below iliac crests.. "
5. " neck..... "
6. " neck and chin..... "

Price to Patients.....\$12 00



4707

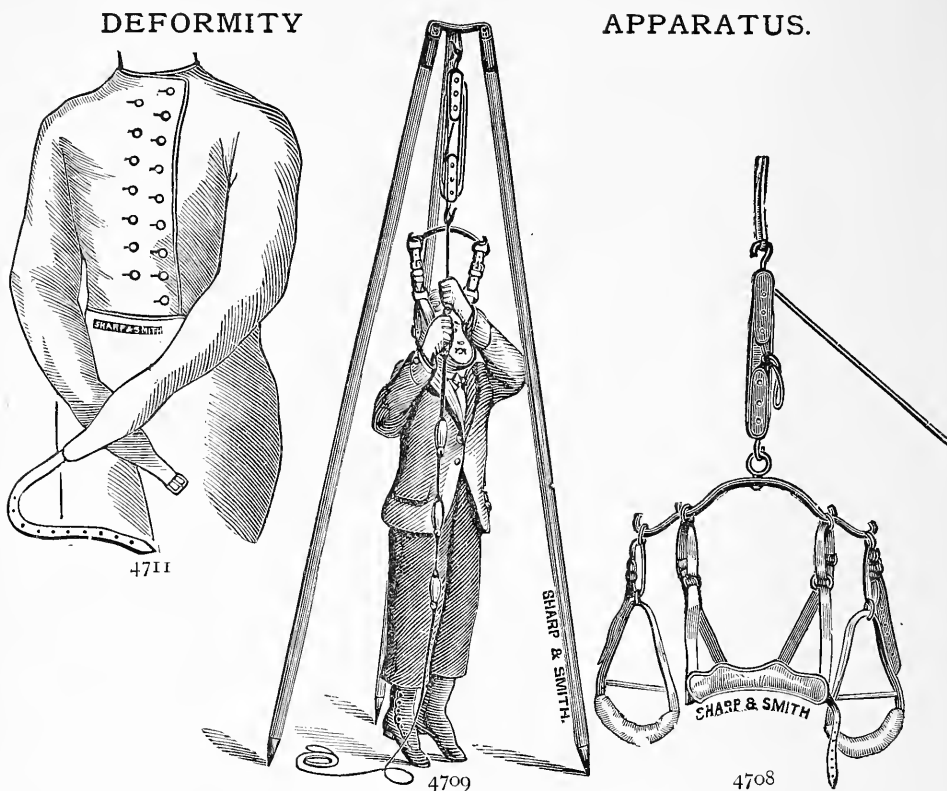


Fig. 4708.—Sayre's Suspension Apparatus.

DIRECTIONS FOR MEASUREMENT.

1. Age of patient.
2. Circumference of head around chin.
3. " " of head around occiput.

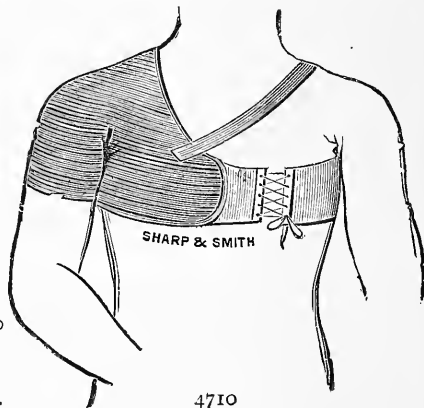
FIG.

*4708	Price of apparatus with plain pulleys.....	\$ 6 00
	With brass compound pulleys (as shown in cut).....	11 00
*4709.	Tripod (only).....	\$6 00
	Seamless Shirts....	\$1 50 to 3 00
*4711.	Price to Patients.....	Short, \$8 00; Long, 10 00

Fig. 4710.—Apparatus for Preventing the Dislocation of the Shoulder Joint.

DIRECTIONS FOR MEASUREMENT.

1. Name.
 2. Weight (estimated).
 3. Right or left shoulder.
 4. Circumference of the arm.
 5. " axilla to acromion.
 6. " of chest under axilla.
- Price to Patients.....\$6 00 to 9 00



Pages 736 to 768, are prices to Patients.
Special prices to Physicians, and the Trade.

WE MAKE TO ORDER
PROF. GUNN'S APPARATUS

—FOR—

*SPINAL CURVATURE,
 ANCHYLOSIS OF KNEE,
 ANCHYLOSIS OF ELBOW,
 HIP-JOINT DISEASE,
 WRY NECK,
 CLUB FOOT, ETC.*

WE MAKE TO ORDER

PROF. OWEN'S
 AND
PROF. STEELE'S APPARATUS

FOR

*SPINAL CURVATURE,
 BOW LEGS, KNOCK KNEES,
 ANCHYLOSIS OF KNEE,
 ANCHYLOSIS OF ELBOW,
 HIP-JOINT DISEASE,
 CLUB FEET, WRY NECK.*

WE MAKE TO ORDER
PROF. ISHAM'S APPARATUS,
PROF. BEEBE'S APPARATUS,
PROF. JAY'S APPARATUS.

We make a specialty of Deformity Apparatus, Elastic Stockings and Supporters. We give our personal attention to the correct and careful fitting of Deformity Apparatus. Surgeons from a distance will have their orders promptly attended to by sending us careful measurements, and as full particulars as possible.

SHARP & SMITH.

73 Randolph Street, - - CHICAGO.

ARTIFICIAL LIMBS.

Send for Our Late Book on Artificial Limbs and Appliances.

We wish to call the attention of the medical profession, and all those who are interested in the latest and most useful improvements in mechanical surgery, to the merits of our limbs.

After having made and sold these limbs with unvarying success during a period of fourteen years, and upon their adoption by leading surgeons, and the favorable testimonials of hundreds who are wearing them, we feel justified in making the declaration, that for all the purposes for which an artificial leg is intended, they are without a rival.

Practical experience and the scientific adoption of mechanical principles to answer anatomical purposes, have resulted in the production of these, the most durable and successful imitations of the natural leg ever yet attained.

Heretofore inventors, in their attempts to imitate nature, have lost sight of the fact that an artificial limb is simply a machine, and that its merits are based entirely upon the superiority of its internal mechanism. In external appearance we claim nothing original, while internally they are unlike any other limb made. In contour and symmetry of motion they as closely resemble nature as is possible, and retain the elements of comfort (to the wearer) and durability.

The materials used in their construction are English willow, steel, rawhide and car spring rubber. We use but one cord, which is made of silk, covered with buckskin, making it very strong and durable. This cord is removable from both ends.

Our limb is not complicated, consequently is not liable to get out of order. It can easily be taken apart for the purpose of cleaning and greasing joints. Our knee-joints are of a recent patent of our own, and will outwear any four sets of joints in use by any other manufacturers. They will not work loose and rattle like other leg joints in general use, and are shaped to fit limbs so that they do not show through pants, when in a sitting position. The spring that regulates the flexing of foot is made of spiral steel, carefully tempered and so arranged that it can be easily removed and a new spring substituted in case of breakage without the necessity of sending limb to our factory. This spring does not become hard like rubber, but will always remain flexible. We seldom hear of one breaking, and no charge is made for them when wanted to replace a broken one.

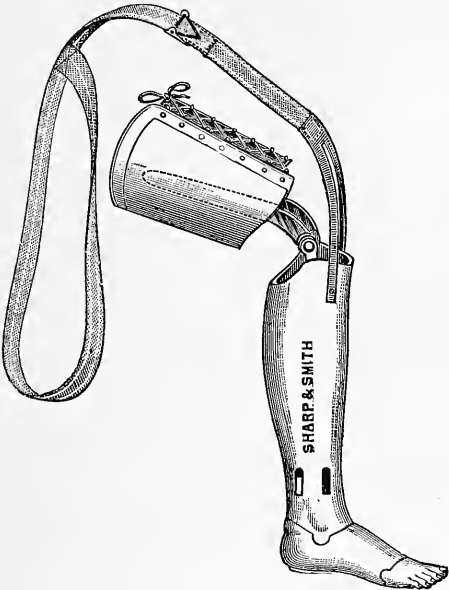
The toe spring is so arranged that the motion can be regulated to suit by simply turning a nut inside of foot.

Our laces are made of substantial leather, covered inside and out with buckskin, stitched with silk, and fastened with patent hooks.

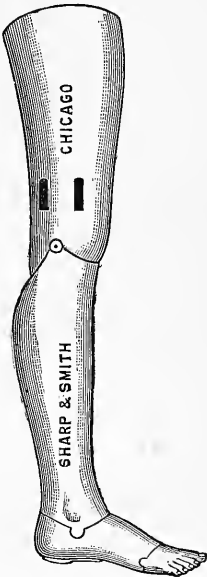
The weight of these limbs is from $2\frac{1}{2}$ to $4\frac{1}{2}$ pounds, according to the weight of the patient.

Our artificial foot is fully explained in the cut, and is the most complete apparatus ever applied to what is known as "Chopart's Operation." We also construct an apparatus for the extension of shortened limbs.

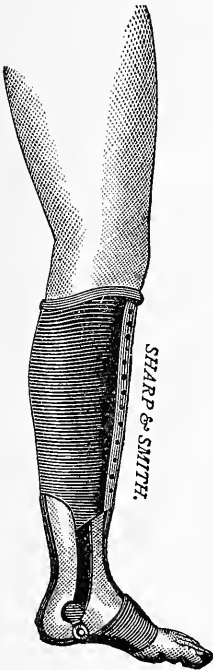
ARTIFICIAL LIMBS.



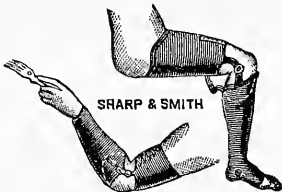
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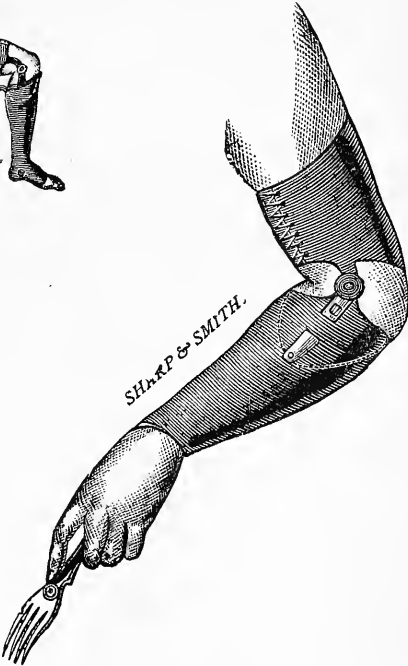
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4727



4729

ARTIFICIAL LIMBS.

FITTING.

These limbs are fitted by a thoroughly experienced person, and their construction is under our personal supervision. We guarantee entire satisfaction in every case, and as regards our responsibility, we refer you to physicians and druggists generally.

Parties desiring a limb, should write for blank measurements, which must, when received, be filled as per instructions accompanying them. When returned to us, the limb will be put in form, and the patients notified when to come to the factory, have it fitted, and give it a trial.

It is possible in some cases to make a limb from measurements only. If, after measurements and a detailed statement of the case are received, we conclude that your presence is unnecessary, you will be so informed.

Twenty-five per cent. of the price must (except on special contract) accompany each order.

For parties coming from a distance, we will procure board and lodging at the most reasonable rates, if desired.

TESTIMONIALS.

In place of an array of testimonials (which are cheap and very common) we will furnish, on application, the names of persons, male or female, who are wearing our limbs, and who represent the various forms of amputation, from the flexors of the foot to within three inches of the body. We have also numerous cases of double amputations, to whom we will gladly refer you.

ARTIFICIAL ARMS.

OUR ARTIFICIAL ARMS

Embrace all the Modern Improvements.

Send for our late Book on Artificial Limbs and Appliances.

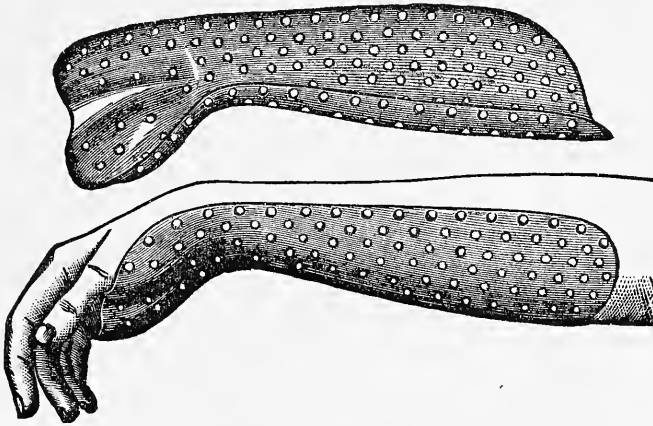
SPLINTS.

LEVIS' METALLIC SPLINTS.

The copper used in the manufacture of these Splints being less than one-eightieth of an inch in thickness, makes them very light and readily conformable by bending so as to suit the peculiarities of any limb, and yet the Splints when applied are as firm as the heaviest wooden appliances. They fit so accurately that but little padding is required; a piece of woven lint or of cotton or woollen flannel, is all that is necessary for their lining. A slight roughness is left on the outside of the Splints by perforations to prevent the bandage from slipping. They are nickel-plated to prevent oxidation.

They are invaluable when the parts are lacerated. As the perforations allow ventilation, and secretions are not confined and liable to be absorbed, as in every other kind of splints, but readily pass off through the numerous orifices, they do not become offensive like those made of porous materials.

These Splints are cooler, and lighter in weight, thinner in material, more correct in shape and more perfect in fit than any other Splints offered to the profession. They are all made in TWO SIZES—one for adults, and one for children, and all, except the radius, fit the same on either the right or left limb. The following comprise a complete set, and are ample to apply to any fractures that may occur.



4750

No. 1. Radius Splints—Right and Left.

For Fracture of Lower end of the Radius. Four in each set. For each piece.....\$1 00

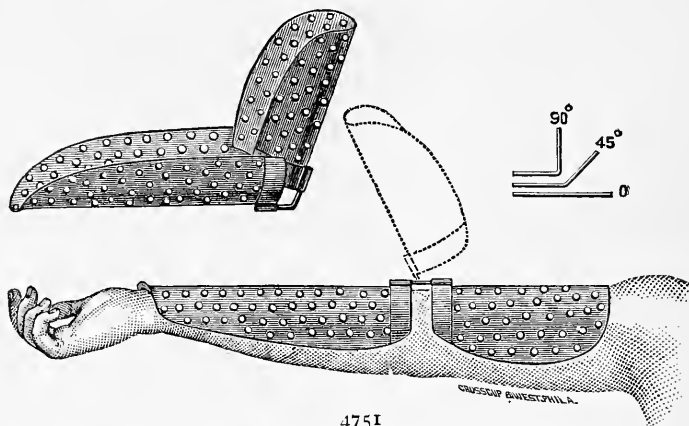
In the treatment of fracture of the lower end of the radius it is essential that proper allowance be made for the curvature of the anterior or palmar surface of this part of the bone. This is insured in this Splint, which follows directly the radial curvature; and the fixing of the thenar and hypothenar eminences of the hand in their moulded beds, maintains the splint immovably in its correct position with reference to the radial curve.

To neglect of complete primary reduction of the displacement of the lower fragment, and to inefficient restoration and retention of the normal radial curve, are due the frequent unfortunate sequences of this fracture.

No dorsal splint is needed, but a small pad will in most cases be required over the dorsal surface of the lower fragment. For retention of the Splint an ordinary bandage, two inches and a half to three inches wide, is all that is necessary.

This Splint has the merit of being applicable to all cases of fracture of the lower end of the radius, and also to many other injuries involving the forearm and wrist.

SPLINTS—LEVIS' METALLIC.

**No. 2.—ADJUSTABLE ANGULAR SPLINT.**

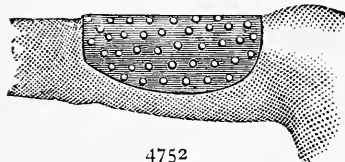
For all fractures of the elbow joint, and of the arm and forearm, excepting those at the lower end of the radius.

Two in each Set.....each \$1 50

This Splint can be applied either anteriorly or posteriorly, and is comfortable and adjustable to any angle.

The pieces are detachable, and can be used separately.

This Splint is also applicable to diseases, and to resections, of the elbow joint.

**No. 3.—HUMERUS SPLINT.**

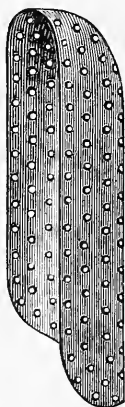
For Fractures of the Humerus.

Two in each set.....each 50 cents.

**No. 4.—PHALANGES SPLINTS.**

For Fractures of Fingers or Toes.

Three in each set.each piece \$0 15

**No. 4.—IMPROVED PHALANGES SPLINT.**

For Fractures of Fingers and Toes

Three in each set...per piece \$0 15

We have made a great improvement in these Finger Splints by adding the extension which runs up on the palm of the hand. This tip also makes them adaptable to H. A. Wilson's Metacarpal Splints.



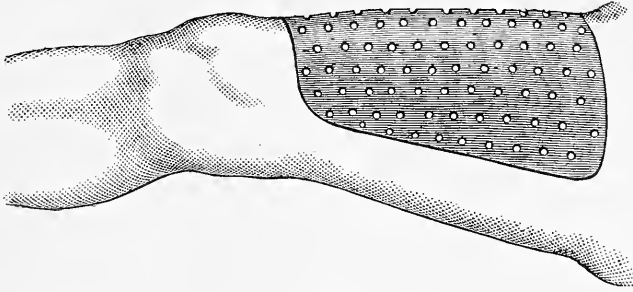
Two in each set .. each \$0 75

Fig. 4755.—No. 5.—Clavicle Splint.—This Splint forms a cap for the shoulder, and can be applied to fractures of the clavicle and humerus.

Fig. 4756.—No. 6.—Maxilla Splint.—This Splint forms a complete cap or covering for the entire chin and lower maxillary bones, and keeps the fractured parts rigidly in the correct position.

4756

Two in each set....each \$0 75

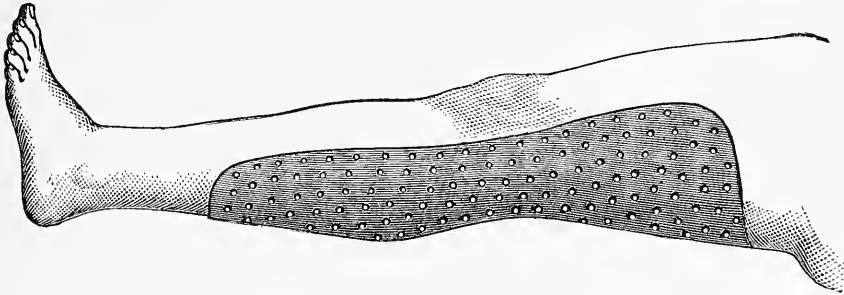
SPLINTS—LEVIS' METALLIC.

4577

No. 7. FEMUR SPLINT.

For fractures of femur, ribs and hip-joint.

Two in each set.....each \$ 50

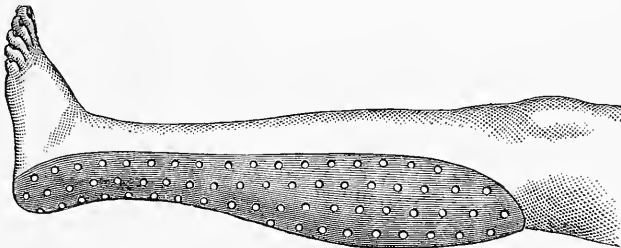


4578

No. 8. PATELLA SPLINT.

Two in each set.....each \$1 00

This Splint can be applied to all fractures from middle of femur to middle of tibia and fibula, and is particularly well adapted for fractures of the patella and all other fractures occurring near the knee joint, either above or below it.



4579

No. 9. TIBIA AND FIBULA SPLINT.

For all fractures and other injuries of the leg below the knee, and especially adapted for those at or about the ankle joint.

Two in each set.....each \$1 00

The complete set consists of the twenty-one pieces just described, in a neat compact case. \$15 00 per set.

SPLINTS—LEVIS' METALLIC.

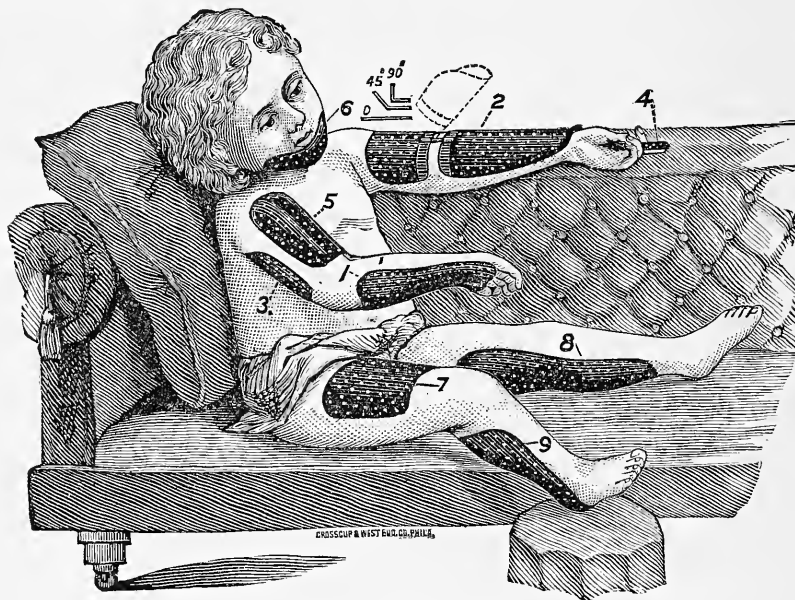
No. 10.—Two in a Set.—Splint for Treatment of Club Foot. Price, 75 Cents Each.

Made of perforated and nickel-plated copper, in two sizes, for infants from three months to three years of age. They are made so as to fit the same on either limb, and are especially adapted to have shoes made over them, or to be fastened to the inside of ordinary shoes. The leg part can be trimmed off at the top of the shoe, unless needed for support.

They are much lighter in weight, and better in fit than iron braces can possibly be made. They support, strengthen and straighten the limbs by a very gradual and uniform pressure throughout. This is owing to the large surface of the limb which they incase.

Set for Infants. The only Set of Infant Splints in the Market.

This set consists of ELEVEN PIECES, and is only intended for infants of three years of age and under. They are made in the same shapes as the large sets, No. 1 being made in Rights and Lefts, and all the other shapes made to fit the same on either limb.



4581

Prices of the Different Pieces.

No. 1.....each \$0 75	No. 4.....each \$0 10	No. 7.....each \$0 25
No. 2.....“ 1 00	No. 5.....“ 50	No. 8.....“ 75
No. 3.....“ 25	No. 6.....“ 50	No. 9.....“ 75

Above set (Fig. 4581) contains eleven pieces, put up in Walnut Case. Price, \$5.00.

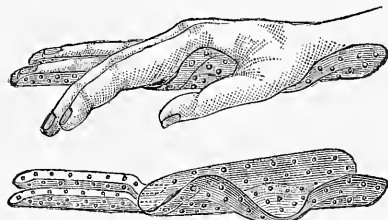
This Infant Set will never be included in the regular Adult and Children Set, unless so specified in the order.

The regular set of twenty-one pieces, and this Infant Set of eleven pieces combined, thirty-three pieces in all, put up in one case. Price \$18.00.

SPLINTS—LEVIS' METALLIC.

NEW HAND SPLINT DEvised BY H. AUGUSTUS WILSON, M. D., OF PHILADELPHIA.

No. II.—H. A. Wilson's Metacarpal Splint, Four in each Set. Price, 75 Cents for Each Piece. Finger Splints, 15 Cents for each Piece Extra



4582

The usefulness of the above Splint is fully illustrated in the above cut. It is made in *Rights and Lefts* for *Adults and Children*, of thin, flexible, perforated and nickel-plated copper, which can be readily moulded to the parts as desired. It is indestructible by use, and can be thoroughly and easily cleansed by simply immersing in hot water—a very important consideration in this age of antiseptic surgery. It has been found very useful in the treatment of all kinds of injuries to the hand, where support and immobility are desired. In the treatment of fractures of the metacarpal bones, it meets every requirement, and at the same time permits of the judicious use of the fingers, thereby avoiding the troublesome ankylosis that is so apt to follow injuries to the hand.

It is made adaptable for the adjustment of Levis' Metallic Splint, No. 4, (Phalanges) so that one or more of which may be used at a time, as the exigencies of the case require. The injured fingers are given full support in their adjusted position, leaving the sound one free for limited use, so as to avoid ankylosis.

NEW COMBINED FOREARM AND HAND SPLINT.

Made in two forms, as shown in the Figs. 4583 and 4584. These Splints are designed to fill a long-felt want for a Splint that could be universally used for all fractures and injuries to the forearm, hand and fingers. Thus, the bandage can be applied (if necessary) above and below the injury, leaving it open or exposed for treatment. In addition to their "Antiseptic" qualities, our Splints retain the members in their correct and normal position; these are very important and essential features, not possessed by any other Splints in the market.

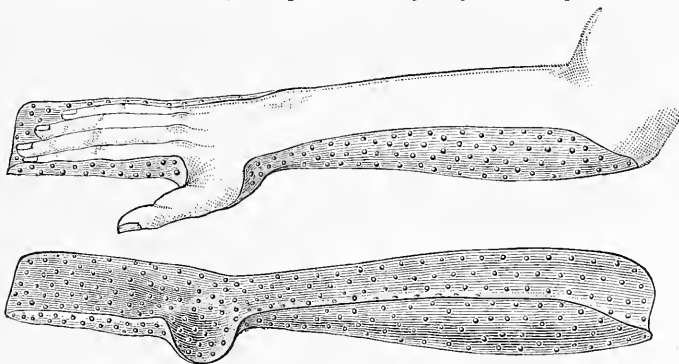


Fig. 4583. No. 12each \$1 00
Combined Forearm Splint. Rights and Lefts. Adults and Children. Four in each Set.
For all fractures and injuries of forearm, hand and fingers.

SPLINTS—LEVIS' METALLIC.

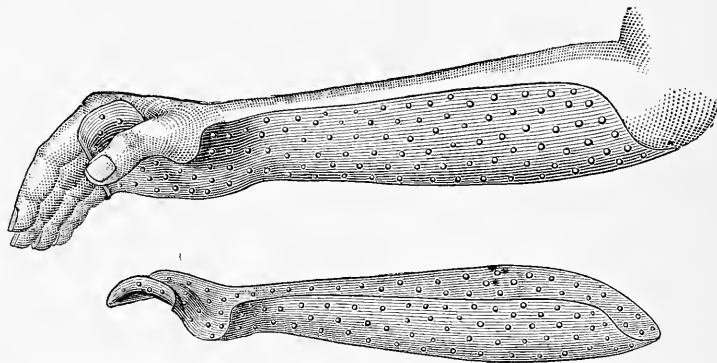


Fig. 4784. No. 13.....each \$1 00

COMBINED FOREARM SPLINT (IMPROVED BOND'S SPLINT.)

RIGHTS and LEFTS. ADULTS and CHILDREN. FOUR IN EACH SET.

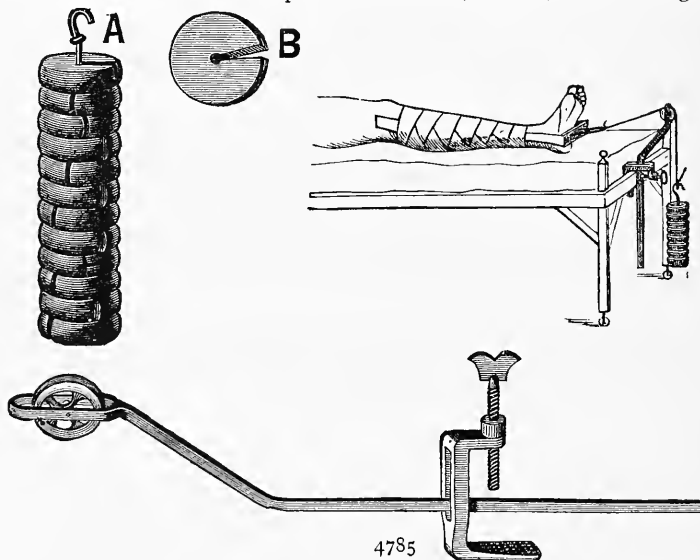
For all Fractures and Injuries of the Forearm and Hand.

LEVIS' EXTENSION APPARATUS.

Designed by R. J. LEVIS, M. D., Surgeon to the Pennsylvania Hospital, and to the Jefferson College Hospital.

The application of the principle of weight-extension to the treatment of fractures, and in diseases and deformities of joints, is of such importance as to require more effectual and convenient apparatus than is ordinarily used. It is desirable that the mechanical appliances for this object should be convenient and inexpensive, portable, not cumbersome, and readily and securely applicable to various forms of bedsteads and couches. It is also important that the amount of tension by weight can be estimated, and varied to the requirements of the case.

All these requisites are secured in an accurate and mechanical manner by the Apparatus devised by Dr. R. J. Levis, which has been used for a number of years in the Pennsylvania Hospital, and also to some extent in the hospitals of New York, London, and other large cities.



SPLINTS—LEVIS' EXTENSION.

(See Illustration on Opposite Page.)

The rod (A) fits the hole in the center of weight (B) nicely, excepting about an inch from the top, which is flattened in order to admit the weights being put on and taken off at that point, and at that point only.

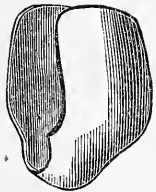
The wood cuts render a full description of the apparatus unnecessary. An adjustable clamp holds in position the upright rod which supports the pulley. The rod and pulley can be adjusted at any required elevation. The clamp will grasp either a wide or a narrow bar at the foot of the bedstead, or it can be attached to the back of a chair, to the end of a table, or to any object of sufficient security and steadiness. It can be reversed so as to grasp an under edge when such hold is more convenient.

The above apparatus is put up complete, with foot block and cord attached, ready for instant use, in a neat and substantial case. Price \$5.00.

AHL'S ADAPTABLE POROUS SPLINTS.

Detailed Description of the Sets—What Constitutes a Complete Set.

The complete set of Adaptable Porous Splints contains twenty-five (25) pieces for adults, and twenty-five (25) pieces for children, making in all fifty (50) pieces. They weigh altogether not quite five pounds, and are neatly packed in nests in a light wooden box with a firm fastening. This allows them to be conveniently transported in the physician's carriage.



4786

Lower Maxillary Splint (Fig. 4786.) This splint embraces the entire chin, and forms a complete support to the fractured part while at the same time it allows, by its flexibility, sufficient motion to open the mouth slightly, to take food and drink. They are more comfortable than the gutta-percha splint. Retain it by Barton's bandage.

Adults' size, 75c. Children's size, 50c.



4787



4788

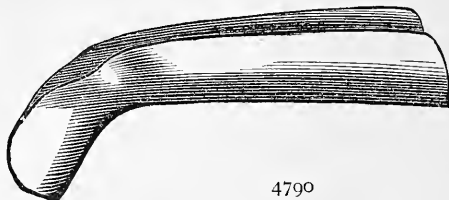
Inferior Forearm Splint for the Ulna (Fig. 4787) and **Superior Forearm Splint for the Radius** (Fig. 4788.) These two splints are intended for all fractures of the forearm, and also for sprains and dislocations at the wrist joint complicated or not with fracture. Very often actual fractures of the head of the radius or ulna are diagnosed as sprains, and result in semi-anchylosis. These cases, even when of several months' duration, can be treated with complete success with these splints. They are also admirably adapted to treating Barton's fracture, fulfilling every indication as well as Bond's Splint, requiring no pads or compresses, and being less likely to be followed by stiffness of the joint. They may be used either in combination or alone. As the radius and ulna are more liable to fracture than any other bones, ready-made splints are very convenient.

Adults' size, each, 75c. Children's size, each, 50c.

SPLINTS—AHL'S FELT.



4789



4790

Elbow Splint (Fig. 4789.) This is for fractures and dislocations of the radius, ulna and humerus, at or near the elbow joint. In combination with the Inferior and Superior forearm splints, it is adapted to all fractures of the ulna and radius at the middle or upper third, or compound comminuted fractures of the same bones. Where both radius and ulna are fractured, bring the parts into contact, then apply splints, Figs. 4787, 4788 and 4789, and bandage over all from the hand to the shoulder. If the fracture is comminuted, cut a part or parts out of the splints, corresponding to the points of comminution, and bandage around them. The wounds can easily be dressed without disturbing the splints or bandages. As the swelling is reduced, tighten the bandages as the splints accommodate themselves to the reduction. The Elbow Splint is at an obtuse angle, to prevent the lapping of soft parts, and as being most natural to sling. Adults' size, 75c. Children's size, 50c.

Anterior Tibia Splint (Fig. 4790). This splint is intended for fractures of the tibia proper, and especially for fractures, either simple or compound, in the vicinity of the ankle-joint. It reaches from the knee-joint to the instep, and embraces the ankle-joint perfectly. Fractures of the malleoli will be readily treated by combination of this and the following pieces. There are two splints of this kind to each set.



4791



4792

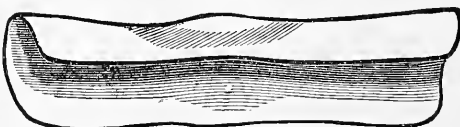
Posterior Fibula Splint (Fig. 4791.) This splint is suited to treating fractures of the fibula proper, and also in the vicinity of the ankle joints, either simple, compound or comminuted. Figs. 4790 and 4791 are combined for a complete apparatus for treating bad compound fractures of the tibia and fibula, either of the upper, middle or lower third, and at the ankle joints. There are two splints to each set, one for the left and one for the right limb.

Adults' size, \$1.00. Children's size, 75c.

Shoulder Splint (Fig. 4792.) Any fracture of the humerus can be successfully treated by a combination of the shoulder and elbow splints. The shoulder splint fits over the exterior face of the shoulder, and it is to be used with the short, slightly curved piece to be applied to the opposite surface. Adults' size, 75c. Children's size, 50c.



4793



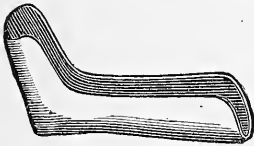
4794

SPLINTS—AHL'S FELT.—Continued.

Anterior Knee-Joint Splint (Fig. 4793).—This splint is adapted to treat fractures of the tibia, fibula and femur near the joint, and also in connection with the anterior and posterior tibia and fibula splints, to treat all fractures of those bones. There are two splints to each set, one for the right and one for the left knee-joint.

Posterior Knee-Joint Splint (Fig. 4794).—This splint, in connection with the anterior knee-joint splint, treats fractures of the tibia, fibula and femur near the knee-joint, and also the upper third of the fibula and tibia, and the lower third of the femur; and also in connection with the anterior and posterior tibia splints, treats all fractures of those bones. There are two splints to each set, one for the right, and one for the left limb. These splints can be used for the tibia and fibula also, when fractured about the middle of the shaft. Figs. 4793 and 4794 are used also for fracture of the patella, and are admirably adapted to keep it in position.

Adults' size, Figs. 4793 and 4794, \$1.00. Children's sizes, 75c.



4795



4796

Club-Foot Splint for Children (Fig. 4795).—This splint is intended for treating the club-foot of children, after operation, or without operation, which it does very successfully. There are two club-foot splints for each set.

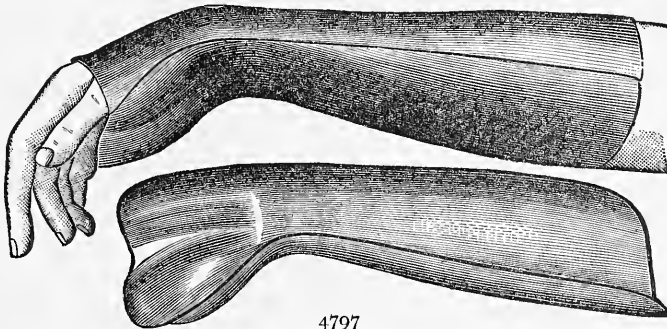
If the application of these splints be commenced soon after birth, where this deformity is present, and so adapted (by the foot being bent sidewise at an angle to the leg portion) that they exert a constant yet moderate pressure toward the normal line of the limb, the deformity may, in some instances, be remedied without an operation.

Fig. 4795 Splint, 75c. Mention age of child.

Fig. 4796 Splint, adult size, 75c. Children's size, 50c.

Femoral Splints (Fig. 4796).—These splints are intended to treat fracture of the lower third and middle of the femur, and upper third, in combination with anterior and posterior knee-joint splints, as represented in Figs. 4793 and 4794. They encase the fractured limb perfectly.

Price of a complete set, embracing fifty pieces, put up in a neat box, with handle on top.....\$26 36



4797

Fig. 4797. **Palmar and Dorsal Splint** (in position). Obviates the necessity of compresses or pads, and insures extension and position.

Adults' and children's size, each piece, 75c.

SPLINTS—AHL'S FELT.

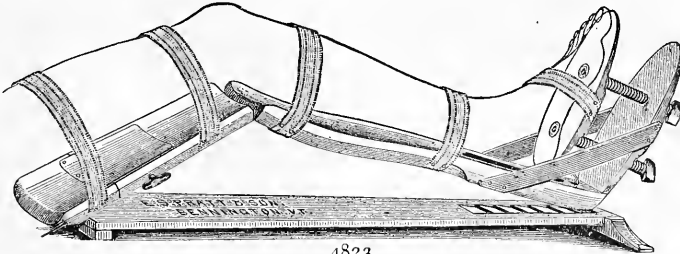
FIG.	No.	NAME AND CHARACTER OF SPLINTS NOT INCORPORATED IN A REGULAR SET—RIGHT OR LEFT.	Adult, per Piece.	Child's per Piece.
479S	15—	Levis-Johnstone, Palmar.....R.	\$ 0 75	\$ 0 75
		Levis-Johnstone, Palmar.....L.	0 75	0 75
4799	16—	Levis-Johnstone, Dorsal.....R.	0 75	0 75
		Levis-Johnstone, Dorsal.....L.	0 75	0 75
4800	17—	Combined Arm and Forearm, Anterior Rt. Angle.....R.	2 00	) These Splints are not made in Children's Sizes.
		Combined Arm and Forearm, Anterior Rt. Angle.....L.	2 00	
4801	18—	Combined Arm and Forearm, Posterior, Rt. Angle.....R.	2 00	
		Combined Arm and Forearm, Posterior, Rt. Angle.....L.	2 00	
4802	19—	Combined Arm and Forearm, Anterior, Obt. Angle.....R.	2 00	
		Combined Arm and Forearm, Anterior, Obt. Angle.....L.	2 00	
4803	20—	Combined Arm and Forearm, Posterior, Obt. Angle.....R.	2 00	
		Combined Arm and Forearm, Posterior, Obt. Angle.....L.	2 00	
4804	21—	Forearm Condyle, Anterior.....R.	0 75	
		Forearm Condyle, Anterior.....L.	0 75	
4805	22—	Forearm Condyle, Posterior.....R.	1 00	
		Forearm Condyle, Posterior.....L.	1 00	
4806	23—	Straight Splint for Elbow and Lower Third of Humerus, Anterior, R.	1 50	) These Splints are not made in Children's Sizes.
		Straight Splint for Elbow and Lower Third of Humerus, Anterior, L.	1 50	
4807	24—	Straight Splint for Elbow and Lower Third of Humerus, Posterior, R.	1 50	
		Straight Splint for Elbow and Lower Third of Humerus, Posterior, L.	1 50	
4808	25—	Right Angle Elbow, Anterior.....R.	1 00	
		Right Angle Elbow, Anterior.....L.	1 00	
4809	26—	Right Angle Elbow, Posterior.....R.	1 00	
		Right Angle Elbow, Posterior.....L.	1 00	
4810	27—	Obtuse Angle Elbow, Anterior.....R.	1 00	
		Obtuse Angle Elbow, Anterior.....L.	1 00	
4811	28—	Obtuse Angle Elbow, Posterior.....R.	1 00	) These Splints are not made in Children's Sizes.
		Obtuse Angle Elbow, Posterior.....L.	1 00	
4812	29—	Metacarpal, Index and Middle Fingers.....R.	0 50	0 50
		Metacarpal, Index and Middle Fingers.....L.	0 50	0 50
4813	30—	Metacarpal, Little and Ring Fingers.....R.	0 50	0 50
		Metacarpal, Little and Ring Fingers.....L.	0 50	0 50
4814	31—	Metacarpal Thumb.....R.	0 50	0 50
		Metacarpal Thumb.....L.	0 50	0 50
4815	32—	Malleolus, Internal.....R.	1 00	1 00
		Malleolus, Internal.....L.	1 00	1 00
4816	33—	Malleolus, External.....R.	1 00	1 00
		Malleolus, External.....L.	1 00	1 00
4817	34—	Fixation Splint, Hip Joint, Anterior.....R.	5 00	.....
		Fixation Splint, Hip Joint, Anterior.....L.	5 00	.....
4818	35—	Fixation Splint, Hip Joint, Posterior.....R.	5 00	.....
		Fixation Splint, Hip Joint, Posterior.....L.	5 00	.....
4819	36—	Femur Perineal and Hip Support.....R.	3 00	.....
		Femur Perineal and Hip Support.....L.	3 00	.....
4820	37—	Hinged Pelvis and Splint (Male).....	7 50	.....
		Hinged Pelvis and Splint (Female).....	7 50	.....
4821	38—	Johnstone's Laced Splint for Knee (any size) ..	10 00	.....
4822	39—	Johnstone's Felt Jacket for Spinal Curvature.....	25 00	.....

When no prices are given, the numbers referred to are made in one size only.

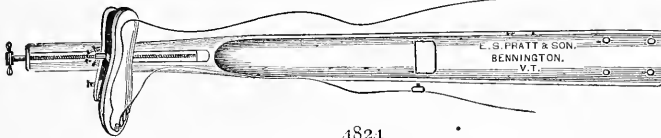
Nos. 34, 35, 37, 38 and 39, are made to order only, and in any size desired.

Orders for No. 39 MUST be accompanied by plaster cast of subject.

SPLINTS—DAY'S OR PRATT'S CARVED WOOD.

4823
DOUBLE INCLINE PLANE.

Small.....	\$3 00
Medium.....	3 75
Large.....	4 50

4824
EXTENSION BAR.

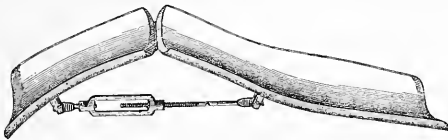
Small.....	\$5 00
Large.....	5 00

4825
RIGHT ANKLE SPLINT.

No. 0.....	\$0 60	No. 2.....	\$0 80
No. 1.....	0 70	No. 3.....	0 95

4826
LEFT ANKLE SPLINT.

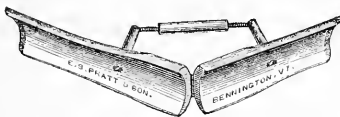
Sizes and prices of Left Ankle Splints
are the same as those of Right Ankle.

4827
Jointed Patella Splint.—With Screw.

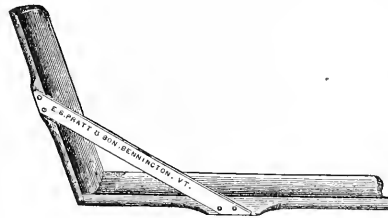
No. 1.....	\$1 50	No. 3.....	\$1 80
No. 2.....	1 70	No. 4.....	2 00

4828
Patella Splint.

No. 1.....	\$0 60	No. 3.....	\$0 80
No. 2.....	0 70	No. 4.....	0 95

4829
Joint Arm Splint.—With Screw.

No. 1.....	\$1 50
No. 2.....	1 70
No. 3.....	1 85

4830
Condyle and Humerus Splint.

No. 1.....	\$0 60
No. 2.....	0 80
No. 3.....	0 95

SPLINTS.

DAY'S OR PRATT'S CARVED WOOD.



4831

Dressing Splints.

Per set of five.....\$ 40



4832

Squire's Forearm Splint.

No. 1.....	\$1 00
No. 2.....	1 10
No. 3.....	1 20
No. 4.....	1 30
No. 5.....	1 40
No. 6.....	1 50



4833

Jointed Condyle and Humerus Splint.

No. 1.....	\$ 60
No. 2.....	75
No. 4.....	95

The Squire's Jointed Forearm Splint, the Jointed Condyle and Humerus Splint, and the Jointed Patella Splint, are not in the regular set of Splints.

The following comprise the Complete Set of Splints:

1 Extension Bar, small.	5 Interosseous, set.
1 " " large.	3 Jointed Arms, set.
1 Double Incline Plane, small.	8 Ankles (new), set.
1 " " " medium.	4 Patella, set.
1 " " " large.	3 Condyle and Humerus, set.
8 Radius or Crooked Hands, set.	5 Dressing Splints.
6 Forearm or Straight Hands, set.	

Pratt's Splints, complete, per set, \$35 00.



4834

Forearm Splint.

No. 1.....	\$0 30	No. 4.....	\$0 50
No. 2.....	35	No. 5.....	65
No. 3.....	40	No. 6.....	75



4835

Interosseous Splint.

No. 1.....	\$0 30	No. 4.....	\$0 55
No. 2.....	40	No. 5.....	60
No. 3.....	50		



4836

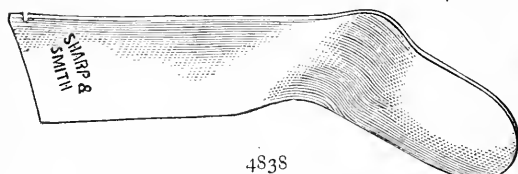
Right and Left Radius Splints.

No. 1.....	\$0 35
No. 2.....	40

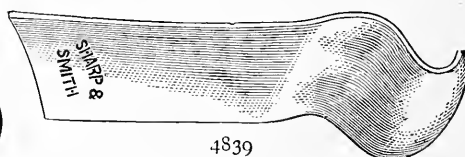


4837

No. 3.....	\$0 50
No. 4.....	60



4838



4839

*4838	Coover's Forearm Splint for fingers, flexed	\$1 00
*4839	Coover's Forearm Splint for fingers, straight.	1 00

SPLINTS.

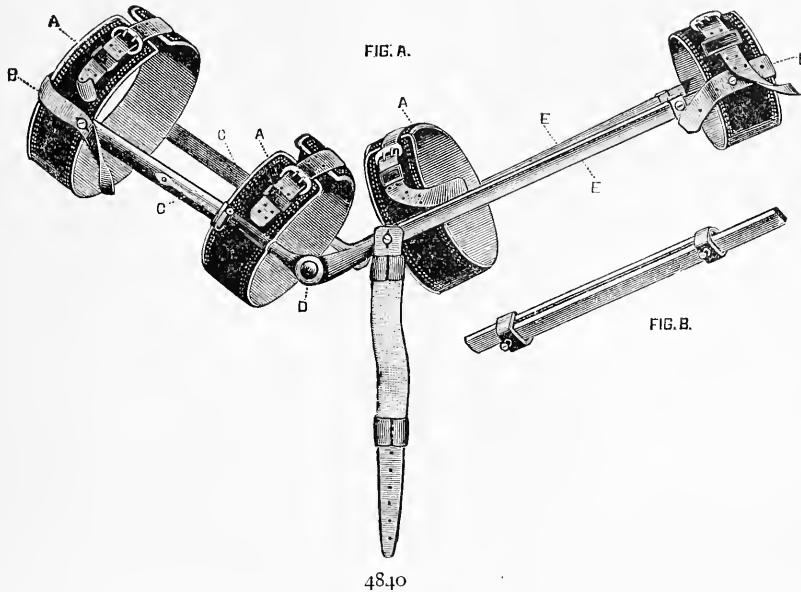
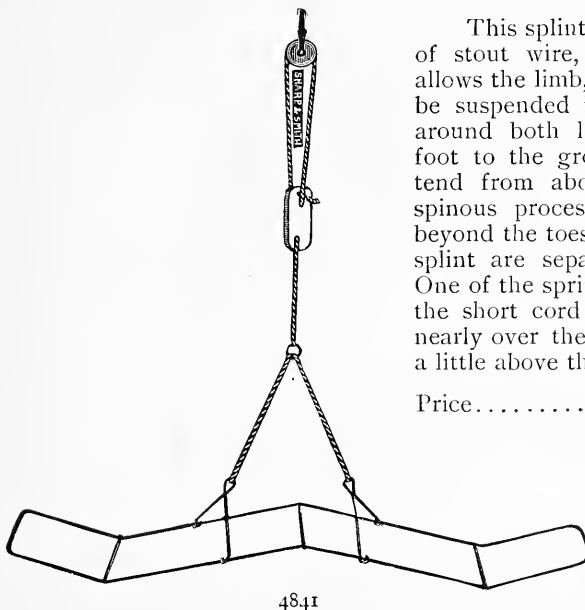


Fig. 4840—Bryant's Splint for Extension of Elbow at any angle, price \$18 75

Fig. 4841.—Dr. Nathan R. Smith's Anterior Splint and Suspending Apparatus for Fractures of the Leg and Thigh.



This splint is simply a frame composed of stout wire, which, being suspended, allows the limb, fastened to it by rollers, to be suspended in turn, the rollers passing around both limb and splint, from the foot to the groin. The splint should extend from above the anterior superior spinous process of the ilium to a point beyond the toes. The lateral bars of the splint are separated about three inches. One of the spring double hooks fastened to the short cord for suspension ought to be nearly over the seat of fracture, the other a little above the middle of the leg.

Price.....\$2 50

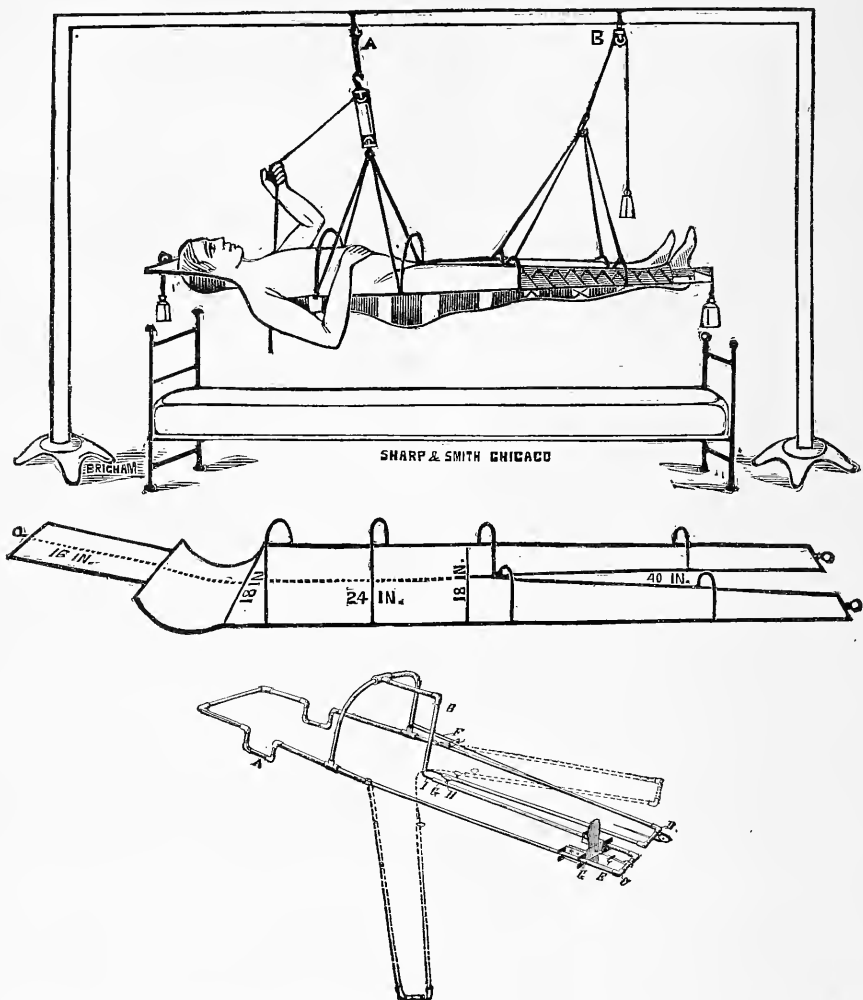


Fig. 4842—Dr. Verity's Splint complete... .. \$12 00

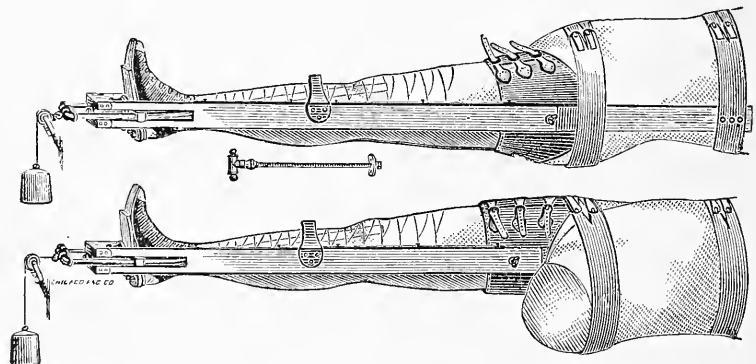


Fig. 4843—Staples' Fracture Apparatus... .. \$40 00

SPLINTS AND SPLINT MATERIAL.

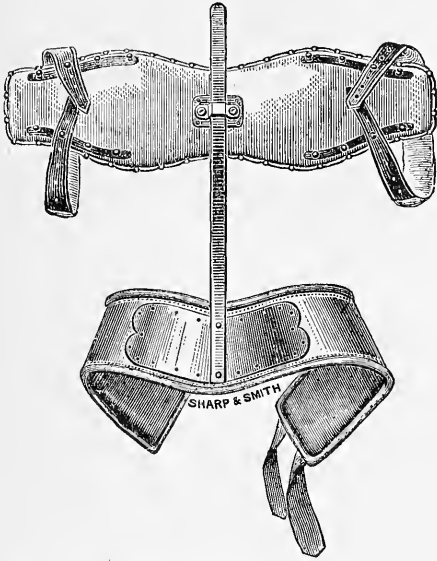


Fig. 4844—Staples' Clavicle Apparatus.
\$15 00.



Fig. 4844—Staples' Apparatus for Fractured Clavicle, Applied.

4845	Plain Fracture Boxes.....	each,	\$3 00
4846	Gutta Percha Splint Material.....	per lb.,	2 00
4847	Binders' Board.....	per sheet,	10
4848	Kochler's Adaptable Splint Material.....	"	1 50
4849	Russian Felt Splint Material.....	per sheet, \$1 50 to	4 00
4850	Gilbert's Patent Set Splints.....		1 00
4851	" " " Flannel Lined.....		1 25



Fig. 4875—McCurdy's Fracture Bed—See next page.

FRACTURE BED.

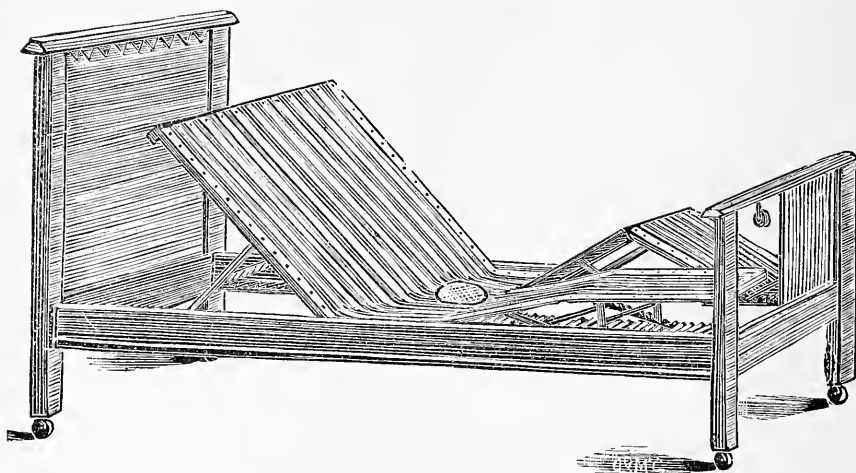


Fig. 4875.—McCURDY'S FRACTURE BED—See Preceding Page.

In presenting this page giving a brief description of the McCurdy Fracture Bed to the medical profession, we feel that we have shown something well worthy the attention of all interested surgeons trying to contrive a method by which fractures, amputations, injuries of the spine, pelvis, large joints and severe wounds, may be treated scientifically without shifting or moving the patient about when undesirable, besides preserving the invalid in any decubitus required, thereby aiding instead of retarding nature in her process of repair.

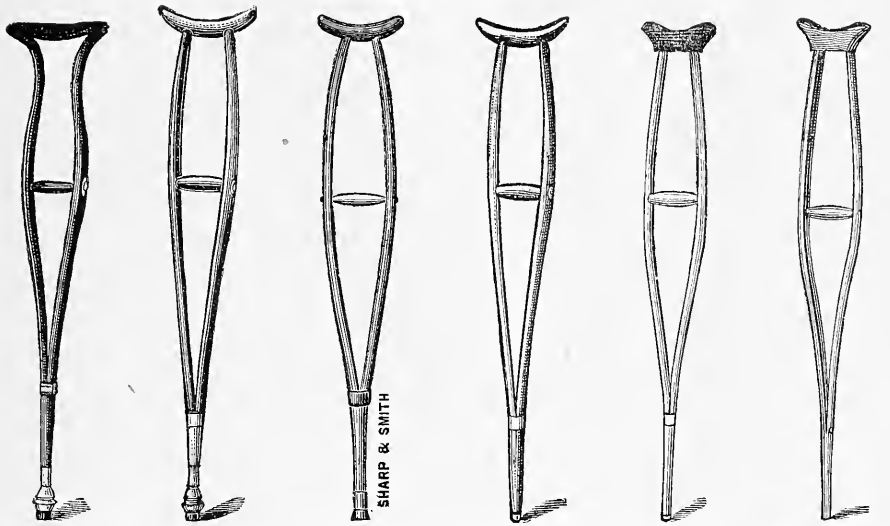
Every medical man who has had any experience in surgery, knows that the difficulty in the successful treatment of grave injuries arises from being unable, at will, to place the patient in a desirable position. This dreaded hindrance can be overcome in every respect by the features found in our bed, which the accompanying illustration will partly explain. Before entering into a separate description of the applicability of each part, it will be well to state concisely that the outside or basic frame measures $6\frac{1}{2}$ feet long, 3 feet wide, 4 inches deep, and contains several adjustable frames operated with ratchet work (see cut) upholstered with the best of canvas material, strengthened at intervals of a few inches with webbing. In the center opposite the point where the nates rest is a circular opening in the canvas, subject to the use of drop trap.

FIG.	
*4875	No. 1. Bedstead made of Poplar Frame, Ash or Oak, upholstering of good material.....\$30 00
*4875	No. 2. Bedstead, Walnut or Cherry, with Panels same, or Ash or Chestnut, Frame, Oak or Ash, upholstering of best material... 35 00
*4875	No. 3. Same as No. 2, with Bedstead highly ornamental..... 45 00
*4875	No. 4. Frame made adjustable to any Bedstead, of best material throughout..... 20 00
*4875	No. 5. Bedstead and Frame same as No. 2, made without the lower extremity inclines, for Paralytics, Fevers, etc..... 32 00
*4875	No. 6. Frame without Bedstead or adjustable lower extremity inclines..... 18 00

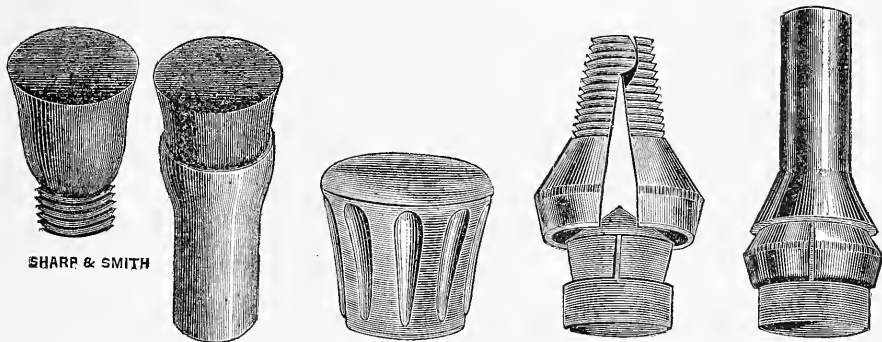
The frame in all cases is made of the best material throughout, the difference in price being based upon the material and style of Bedstead.

The above prices are for Bed packed for shipping, and placed on board cars.

CRUTCHES.



4901—No. 1. 4902—No. 2. 4903—No. 3. 4904—No. 4. 4905—No. 5. 4906—No. 6.



—4907—No. 7.— 4908—No. 8. —4909—No. 9.—

FIG.				
4900	Malacca, Full Nickel Plated Trimmings.....	per pair,	\$15	00
*4901	No. 1. Rosewood, Elastic Top, full Nickel Plated Trimmings.....	"	10	00
4901-A	No. 1. Rock Maple,.....	"	8	00
	Genuine Russia Tops will add \$1 50 per pair net to either of above.			
*4902	No. 2. Rock Maple, Rosewood Tops, Nickel Trimmings.....	"	10	00
4902-A	No. 2. Rock Maple, Cherry Tops, Nickel Trimmings.....	"	7	00
*4903	No. 3. Maple, Two Sticks, with Nickel Plated Bottoms, (Fig. 4907).....		4	00
*4904	No. 4. " " " " Ferrules.....		2	50
*4905	No. 5. " " " " Bottoms (Fig. 4907).....		3	50
4905-A	No. 5. " " " " Ferrules.....		2	00
*4906	No. 6. Plain Split Maple or Ash.....		1	50
4907	No. 7. S. & S. Bottom, Nickel Plated, large.....	per pair,	1	50
4907-A	No. 7. " " small.....		1	50
4907-B	Large Rubbers for above.....	"	40	
4907-C	Small " ".....	"	40	
*4908	No. 8. Slide Rubbers.....	"	25	
*4909	No. 9. Patent Bottoms, Nickel Plated small, \$2 00; medium, \$2 50; large..		3	00
4910	Large Rubbers for above.....	per pair,	40	
4911	Small " ".....		25	

In ordering Nos. 1 and 2 state the kind of wood desired, as well as number of crutch.
Order by numbers, and avoid mistakes. To get desired length, measure from armpit to floor.
The above are prices to patients. Special prices to physicians and the trade.

CRUTCH APPLIANCES.

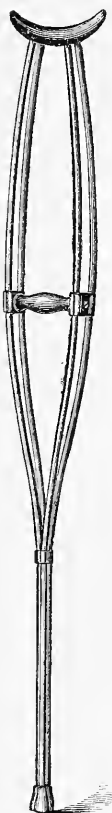
PATIENTS' PRICES.

FIG.		
4912	Long Extension for Crutches, small, per pair.....	\$1 75
*4913	“ “ “ medium “	2 00
4914	“ “ “ large “	2 25
4915	Adjustable Ice Spur per pair.....	50
4916	Conical “ “ “ “	15
4917	Plain Steel Point Ice Spur, per pair.....	10

THE ADJUSTABLE CRUTCH.

Pluche Patent of June 12, 1888.

Made of Polished Hardwood Rods, with an Adjustable Handpiece.



THE HANDPIECE

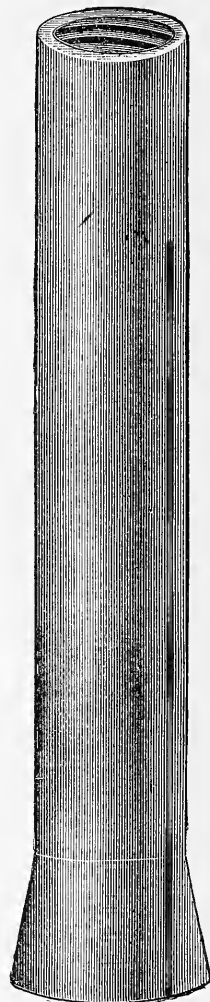
Is fastened with Fine Brass, Nickel-plated Clasps, and by loosening one screw it can be raised or lowered, as desired, which is of much importance.

THE CONSTRUCTION

Is the best possible for this purpose. There being four pieces coming together at the bottom, there is no danger of breakage. When the hand-piece is fastened, it forms the strongest brace known, and cannot well get out of shape.

LIGHT OR HEAVY.

We can adjust the weight of the Crutch for the smallest child or the largest man by increasing the size of the rods, and every pair fully warranted.



No. 41

Fig. 4913.

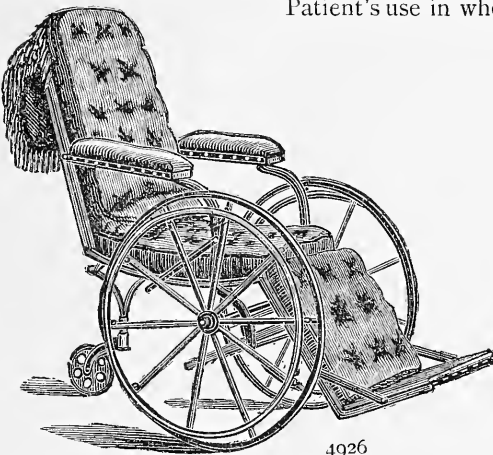
FIG.		
*4918	No. 1. Natural Wood Finish, with Mahogany Handpiece and Saddle, per pair....	\$5 00
*4918	No. 2. Dark Rosewood, with “ “ “ “ “ “	5 00
*4918	No. 3. Ebony Finish, per pair.....	5 00
*4918	No. 4. Natural Wood Finish with Morocco Leather Spring Saddle, per pair.....	6 00
*4918	No. 5. Dark Rosewood with “ “ “ “ “ “	6 00
*4918	No. 6. Ebony with “ “ “ “ “ “	6 00
*4918	No. 7. Nickel-plated Bottom-piece for holding Rubber, per pair.....	1 00
*4918	No. 8. “ “ “ “ “ “ and Spur, per pair.....	1 50

INVALID RECLINING AND SELF-PROPELLING CHAIRS.

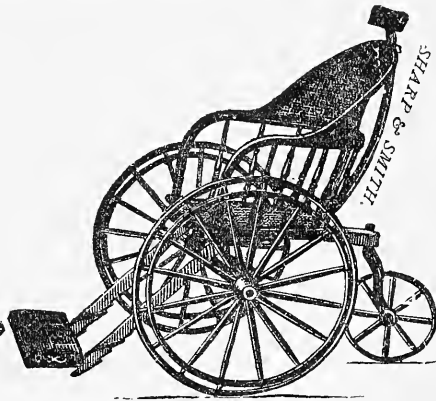


4925

Fig. 4925 Invalid Wheel Chair, No. 1 \$25 00
 " 4925A " " " No. 1A 27 00
 (No. 1A Chair same as No. 1, but with "rims" on outside of wheel for Patient's use in wheeling Chair about.)



4926



4927

FIG.

4926 Invalid's Wheel Chair, No. 2 \$40 00
 4927 " Chair, No. 3 25 00
 4928 " Chair for Children 12 00

INVALID CHAIRS.



4929

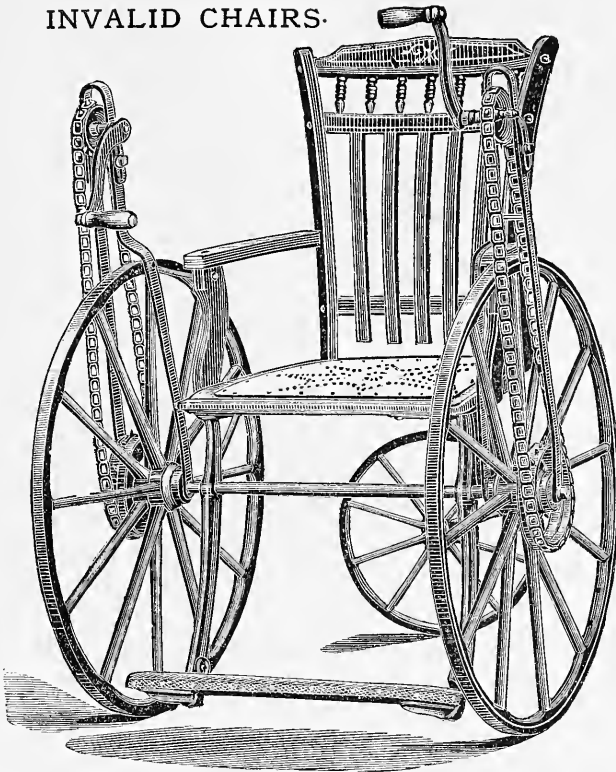
CANE SEAT INVALID SELF-PROPELLER.

Is the same in construction as No. 7, with exception of seat, which is of cane with a roomy rattan back and comfortable arm rests, thus making it a very cool and at the same time a strong and substantial chair. We make this chair in two sizes.

FIG.

- *4929 No. 4. Full size Self-Propelling Chair, size and construction same as No. 5; 28-inch front and 14-inch hind wheels, made of steel spokes, hollow steel rims, and round rubber tires. . . . \$50 00
- 4930 No. 5. Full size Self-Propelling Chair as represented in above cut. Front wheels 28 inches, hind wheels 14 inches; seat and back roomy enough for a large person. Will pass through a doorway way not less than 28 inches. 35 00
- 4931 No. 6. Child's Self-Propelling Chair, general appearance same as above cut, wheels same as No. 8. Axles and seat in same proportion. Will pass through a doorway not less than 26 inches. 30 00

INVALID CHAIRS.



4932

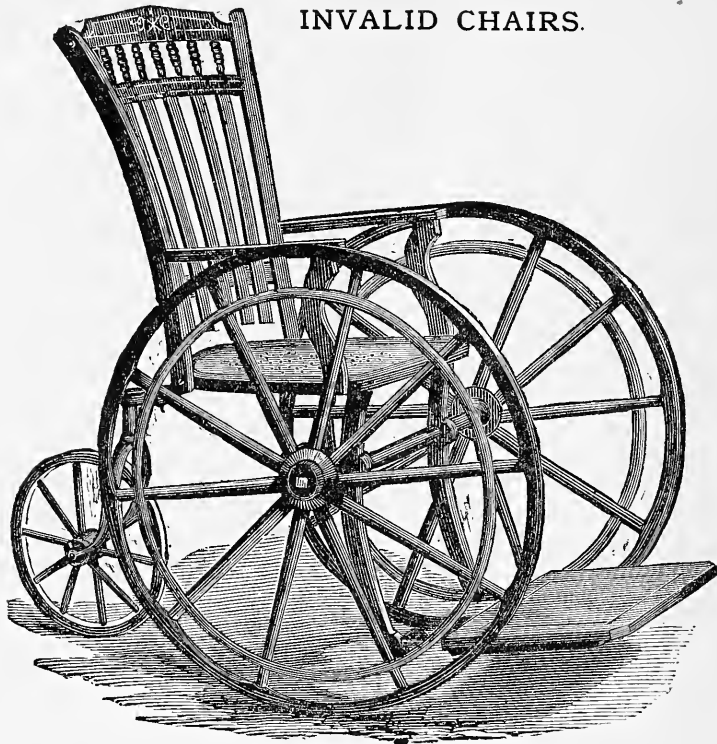
SELF-PROPELLING INVALID CHAIR.

Patented June 29, 1880.

This chair will prove a most valuable companion to invalids, not only on the street, but far more so in the house. The foot rest can be swung up so as to facilitate easy access to the seat. The motion of the cranks being transmitted by its sprocket wheels of but three inches in diameter to those on the front wheels of six inches in diameter, the working power is doubled, so that weak persons can propel it with ease. The machine will work comparatively well on a rough or sandy road, when ascending a moderate inclination; its speed is that of an ordinary walk.

FIG. 1

- *4932 No. 7. Full size Self-Propelling Invalid Chair. Also constructed in the manner as represented in above cut. The seat is similar to a roomy office chair. The front wheels are 28 inches in diameter, hind wheels 14 inches, and are made of the very best material. All connections are of malleable iron, the axles of steel, sufficiently strong enough to carry a weight of 500 lbs. Will pass through a 28-inch doorway.....\$25 00
- 4933 No. 8. Child's Self-Propelling Invalid Chair, has 24-inch front and 12-inch hind wheel; the seat frame measures 16x15, substantially made of oak, with perforated veneer seat. The back is 20 inches high, and has comfortable arm rests. The connections are of malleable iron, the axles of steel, and wheels have welded oval tires. Will pass through a 26-inch doorway.....\$21 00



4934

INVALID ROLLING CHAIR.

The above represents the old style of Invalid Chair, set up on strong, substantial wheels, propelled by means of an outside rim to save hands from contact with dirt; the occupant can thereby propel himself easily from place to place at pleasure. The wheels are made of the very best material, and have heavy welded tires. The axles of steel, connections of malleable iron, well braced and bolted together.

*Fig. 4934 No. 9. Full size Invalid Rolling Chair, constructed in the manner as represented in above cut; the seat is similar to a roomy office chair. Has 28-inch front wheels and 14-inch hind wheel, made of the very best material. All connections are of malleable iron, the axles of steel, quite strong enough to carry a weight of 500 lbs. Will pass through a 28-inch doorway. Price.....\$20 00

Fig. 4935 No. 10. Child's Rolling Chair, designed for children up to 14 years of age; has 24-inch front and 12-inch hind wheels. Seat frame measures 16x15, substantially made of oak, with perforated veneer seat; back is 20 inches high, and is supplied with comfortable arm-rests. The connections are of malleable iron, the axles of steel, and wheels have welded oval tires. Will pass through a 26-inch doorway. Price, \$16 00

N. B.—We make Nos. 4, 5, 6, 7, 8, 9, 10 with three styles of wheels—Wooden Wheels, Steel Suspension Wheels, and Rubber Tire Suspension Wheels. Unless specially mentioned by purchaser that Wooden Wheels are preferred, will send Steel Suspension Wheels, the price being the same. Rubber Tire Suspension Wheels to fit above style of chair, \$15 extra.

TRUSSES—HERNIA.

(See pages 802 and 803 for Net Prices of Trusses.)

The term Hernia, when used simply, is considered equivalent to the English word Rupture, and as applied to the abdomen only. Rupture, according to the common acceptation of the term, is a disease consisting in the passage of any part or parts naturally contained in the abdomen, out of that cavity.

Hernia has been divided into true and false, or spurious.

The former are those protrusions of the abdominal contents in which the parts carry before them a portion of the serous membrane lining the cavity. The latter are the cases where the parts pass into a neighboring serous cavity, as in Congenital Diaphragmatic Rupture. Various affections of the testes, their coats and vessels, have been denominated false in contradistinction to those above defined as True Hernia. The former diseases are attended with swellings in the groin and scrotum, the seat of the most frequent kind of Hernia.

Hernial difficulties have also been divided into external and internal. The former is a protrusion of the abdominal contents with an obvious tumor. The latter are instances of strangulation, caused by certain internal changes not indicated by external swellings, as when the bowels pass through an opening in the diaphragm, or into a preternatural cavity formed in either of the peritoneal duplicatures, or when they are confined by preternatural cords or adhesions. Since the protruded parts may become strangulated in these various cases, as in common Ruptures, they have been regarded as a species of Hernia. When the protruded parts remain in the opening without showing themselves externally, the Hernia is called incomplete. If they come through entirely, and form an external swelling, it is called complete. Although visible external tumors exist in most instances it is not a universal symptom. Inguinal, Femoral or Umbilical Ruptures may be so small, and so deeply seated, as not to be recognizable externally, especially in fat persons.

Fig. 4950 represents a patent truss that we were one of the first to adopt. It is adjustable right to left, and to any desired angle. It is made in three styles, consisting of the French, hard (oval) and soft (oval) shaped pads, and combines all of the advantages of the "French," "Chase" and "Imperial" Trusses.

We have very satisfactory results in the application of these trusses, and we recommend them highly to parties who cannot come to us to be fitted.

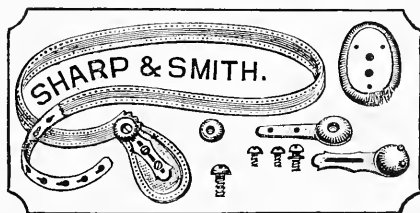


Fig. 4950

We pay personal attention to the careful fitting of Trusses.

TRUSSES.

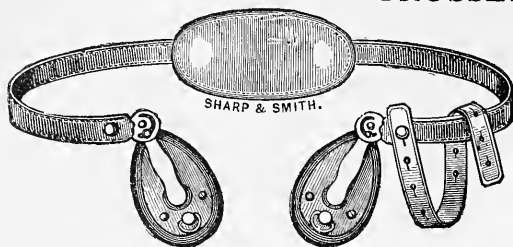


Fig. 4954—Double Imperial Truss.....\$6 00

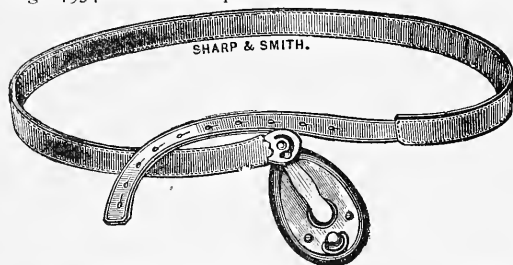


Fig. 4953—Ball and Socket Lock Pad\$5 00

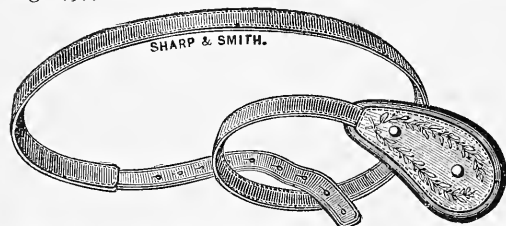


Fig. 4955—Single French Truss... ..\$3 00

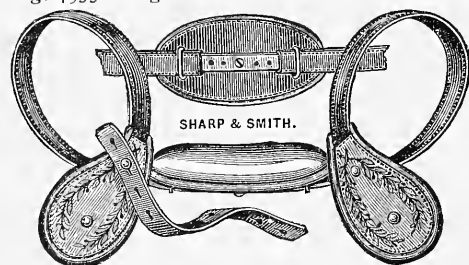


Fig. 4956—Best Double French Truss . \$5 00

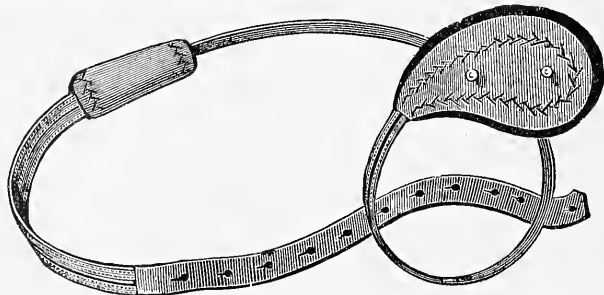


Fig. 4959—Extra Fine French Truss\$5 00

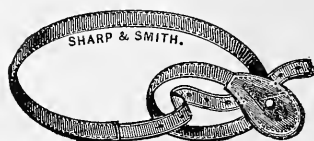
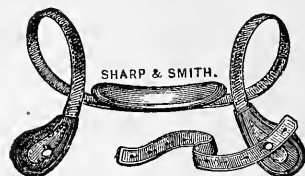
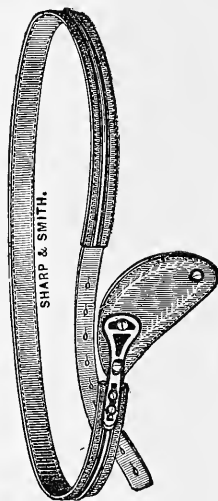
Fig. 4957—Child's or Youth's
Single Truss, Fine French.
\$1 50 to 2 50.Fig. 4958—Child's or Youth's
Double Truss Fine French.
\$3 50.

Fig. 4960—Improved French Truss\$4 50

See pages 802 and 803 for additional Prices and Trusses.

TRUSSES.

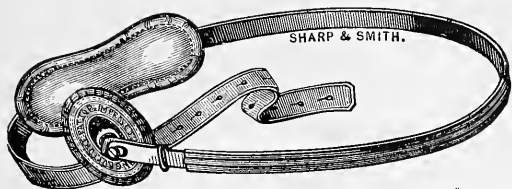


Fig. 4961—Self-Adjusting Truss, Single....\$4 00

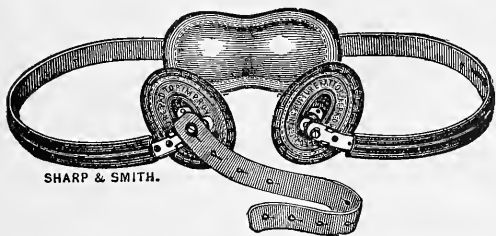


Fig. 4962—Self-Adjusting Truss, Double....\$6 00

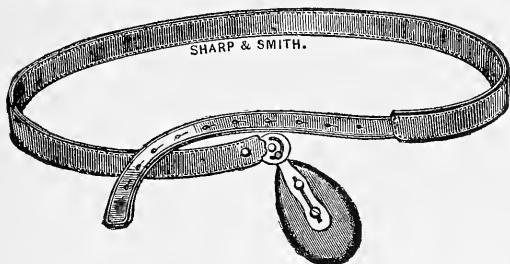


Fig. 4967—Chase's Extension Cedar Pad....\$3 50

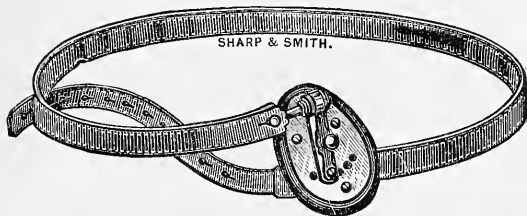


Fig. 4972—Ratchet Truss, Single\$5 00

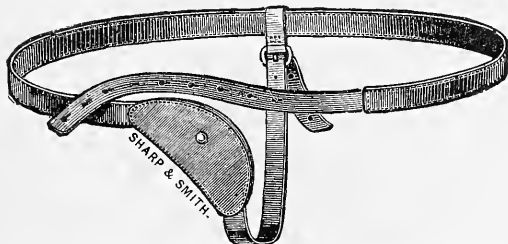
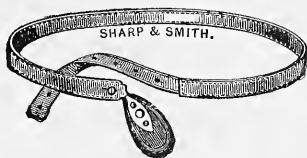
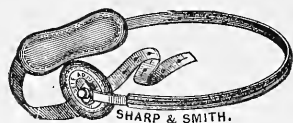
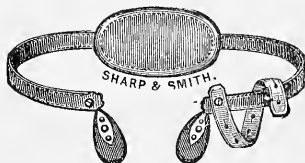
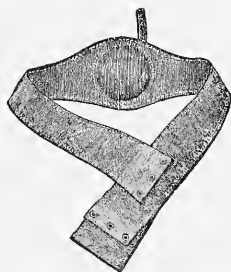


Fig. 4974—German Truss, with Under Strap, \$4 00

Fig. 4969—Child's Truss,
Single, Ebony Pad... \$1 50Fig. 4963—Infant's Self-Ad-
justing..... \$2 50Fig. 4970—Child's or Youth's
Truss, Double Ebony
Pad..... \$3 00Fig. 5004—Soft Rubber Um-
bilical Child's Truss,
.....\$1 50 to 2 00Fig. 5005—The Empire Um-
bilical Truss is made
of the same material,
and possesses the same
merits as the Empire
Elastic Bandage and
Empire Abdominal
Supporter, and is pro-
nounced by all who
have seen it to be the
best..... \$1 00

See pages 802-803 for additional prices and trusses.

TRUSSES AND ABDOMINAL SUPPORTERS

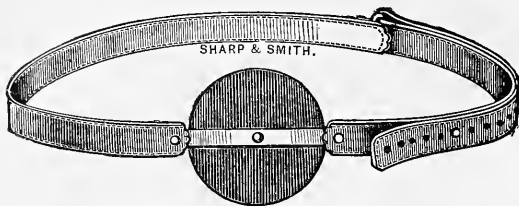


Fig. 4998—Bow (spring) Umbilical Truss..... \$4 00

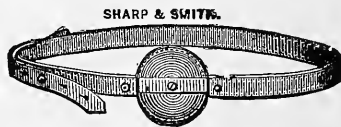


Fig. 4999—Child's Bow Umbilical Truss....\$2 00 to 2 50

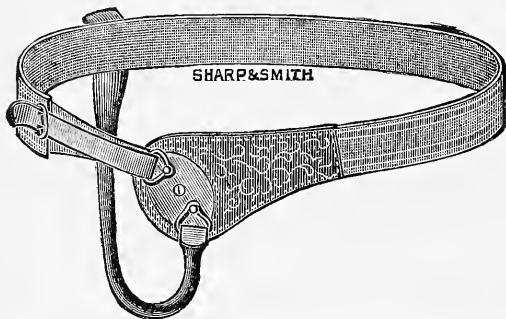


Fig. 4975—New York Elastic, Enamel Pad Truss, \$4 00

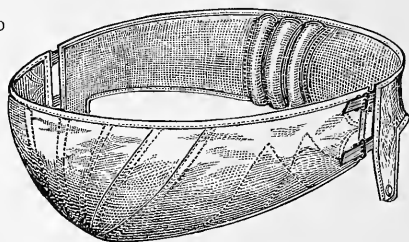


Fig. 5010—Gray & Foster's Abdominal Supporters, \$2 50

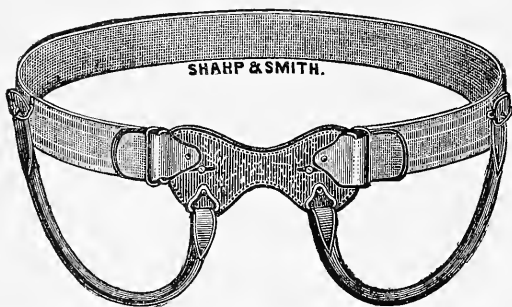


Fig. 4976—New York Elastic Enamel Pad, Double Truss \$5 00

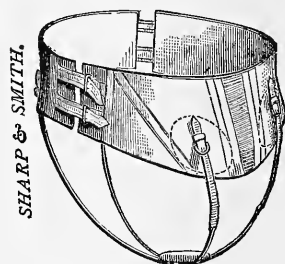


Fig. 5018—Noeggerath's Abdominal Supporter \$5 00

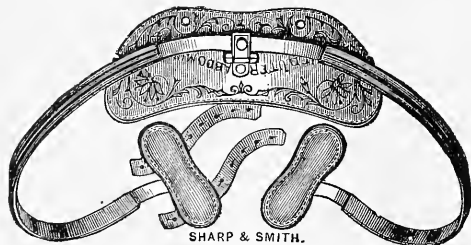


Fig. 5017—Improved Spring Supporter, \$5 00 and 6 00

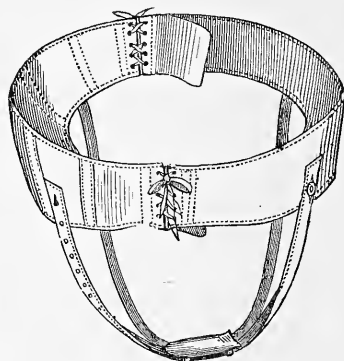


Fig. 5019—Thomas' Abdominal Supporter..... \$6 00

See pages 802 and 803 for additional Prices and Trusses.

ABDOMINAL SUPPORTERS.



5013

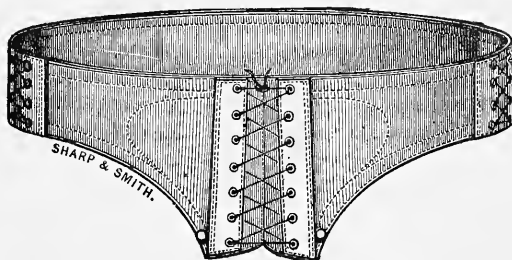


Fig. 5011.—Mrs. Betts' Supporter.....\$5 00

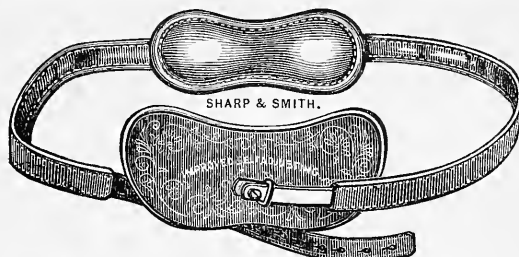


Fig. 5020.—Spring Self-Adjusting Supporter..\$4 00

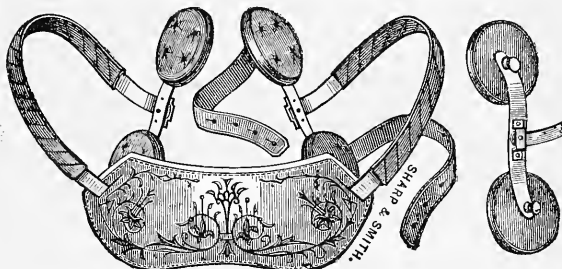


Fig. 5015.—Fitch's Supporter.....\$4 00

Fig. 5013.—THE EMPIRE ABDOMINAL SUPPORTER

Is Superior to all others for the following Reasons :

1st. It adapts itself to every movement of the body, giving strong and even support.

2d. It produces warmth without irritation or sweating, as it is perfectly ventilated.

3d. In pregnancy, corpulency, tumors, or other cases of enlargement of abdomen, it supports weight of body from the back-bone, relieving the sinews of their overwork.

4th. Its easy appliance (lace and draw on over the head or feet).

5th. It is cheap, durable. It can be washed when soiled, proper care being taken to cleanse in lukewarm water, and dry in the shade.

In ordering, give the measure of the abdomen. The Supporter should be from four to ten inches larger, according to the degree of support required.

See page 803 for additional Prices and Supporters.

ABDOMINAL SUPPORTERS.

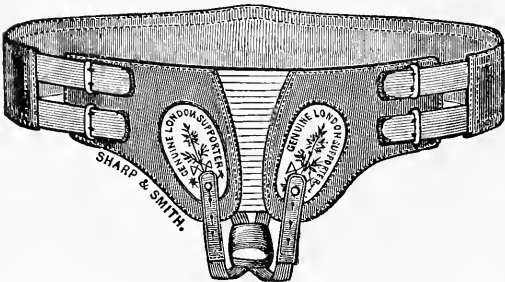


Fig. 5009.—London Supporter.... \$3 00 to 6 00

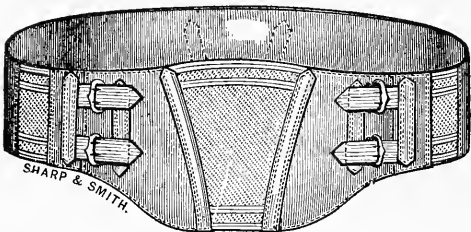


Fig. 5007.—Fine French Supporter, Silk Front.
\$5 00 to 6 00

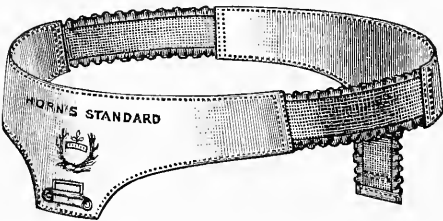


Fig. 5021.—Doily Belt for Menstrual Period .. \$0 75



Fig. 5022.—Sanitary Pads for Menstrual Period,
per doz\$1 00

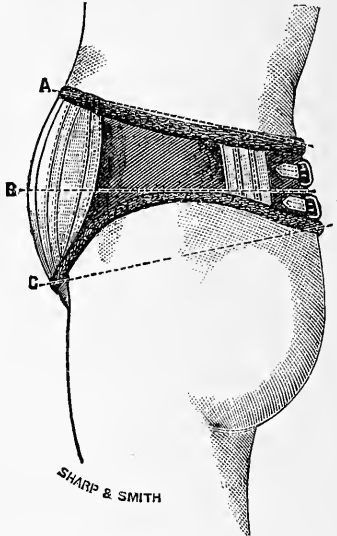


Fig. 5007.—Silk Front Supporter—Applied. \$5 00 to 6 00

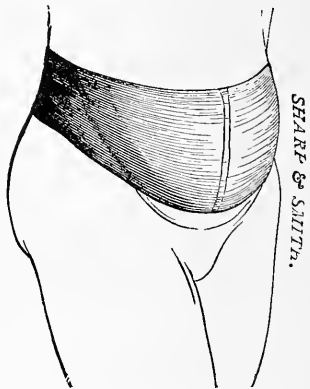


Fig. 5006.—All Silk Elastic
Abdominal Supporter... \$10 00
Cotton..... 8 00

Directions for ordering and measuring Abdominal Supporters, see page 274.

We keep on hand, and make to order, other styles of Abdominal Supporters.

See page 803 for additional Prices and Supporters.

SUSPENSORY BANDAGES.

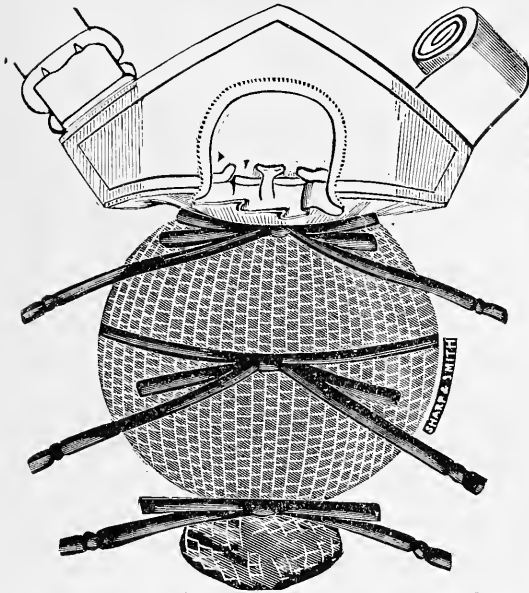


Fig. 5025.—Miliano's Scrotal Compressor \$2 00

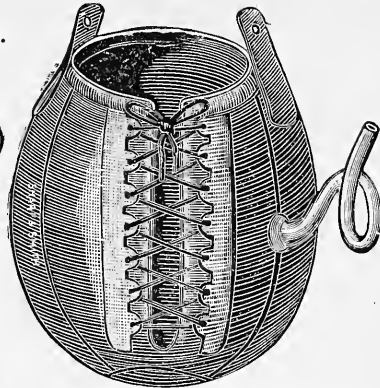


Fig. 5026.—Howe's Scrotal Compressor.....\$3 25

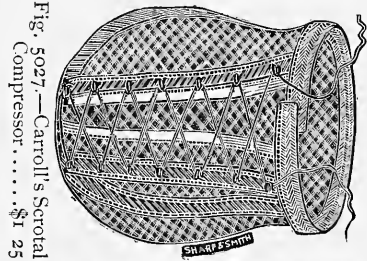


Fig. 5027.—Carroll's Scrotal Compressor.....\$1 25

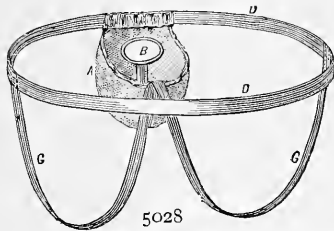


Fig. 5028.
Rawson's Patent
Elastic Self-Ad-
justing
Suspensory.

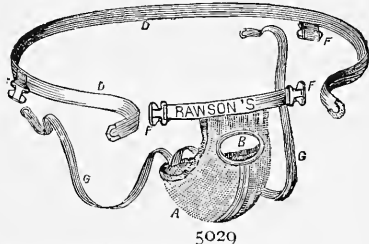
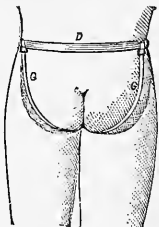
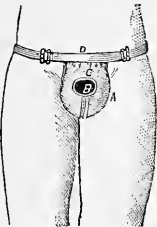


Fig. 5028.—Price List (Patients'). Sizes—Large, Medium Small.

No. 1.	Ordinary quality of Elastic, no buckles	\$1 50
No. 1½.	“ “ “ with buckles at each side of Sack.....	1 75
No. 2.	Fine quality of Elastic, no buckles	2 00
No. 3.	“ “ “ with buckles at each side of Sack.....	2 50
No. 4.	Fine quality of Elastic, with buckles at each side of Sack, at each end of Strap.....	3 00
No. 5.	Silk Sack, Elastic, with buckles at each side of Sack, and at end of each Strap.....	3 50
No. 6.	Silk Sack, Elastic, and Silk Elastic Straps, with buckles at each side of Sack, and at end of each Strap	4 00



Explanation of the Cuts.—Fig. 1.—*a*, Sack of silk, linen or cotton net, which will not interrupt the action of the respiratory organs of the skin; *b*, An opening with an elastic ring, or band *c*, which keeps the material of the sack closed around the penis and exterior portions of the testicles; *d*, An elastic band which encircles the body and passes around the hips downward toward the penis, is made either with or without buckles, as in Fig. 2, or permanently, as in Fig. 1; *g g*, Elastic straps, passing over the buttocks and attached to sack, *a*, beneath, which keeps the sack, *a*, in position, so as not to pinch the testes; and in whatever position the person may put himself, the sack will remain in place—the straps only yielding, and accommodating themselves to the movements. See page 803 for additional Prices and Bandages.

802 NET PRICES OF TRUSSES, SUPPORTERS, Etc.

(Illustrated on pages 796 to 801.)

FIG.		PHYSICIANS.
*4950	Patent Adjustable Truss, Single French Pad, Adults.....	\$ 3 50
4950	“ “ “ “ Enamel “ “	3 50
4950	“ “ “ “ Soft Oval Pad “	3 50
4951	“ “ “ “ Double (any of above style) Pad, Adults.....	5 00
4952	“ “ “ “ Single “ “ Children's.....	2 00
4952	“ “ “ “ “ “ Patient's Price for	
	Children's	3 50
*4953	Imperial Adjustable (Ball and Socket) Truss, Single, Adults.....	2 00
*4954	“ “ “ “ Double, “	3 50
*4955	Fine French Truss, Single, Adults.....	1 75
*4956	“ “ “ “ Double, “	2 75
*4957	“ “ “ “ Single, Infants	1 00
*4957	“ “ “ “ Youth's.....	1 00
*4958	“ “ “ “ Double, Infants.....	1 50
*4958	“ “ “ “ Youths.....	1 75
*4959	Extra Fine French Truss, Single, Adults.....	2 75
*4960	Improved Fine French Truss, Single, Adults.....	2 25
*4961	Self Adjusting Cross Body, Ball and Socket Truss, Single, Adults.....	2 00
*4962	“ “ “ “ “ “ Double, “	2 50
*4963	“ “ “ “ “ “ Single, Infants.....	1 50
{ 4964	“ “ “ “ “ “ Double, “	2 25
{ 4964	“ “ “ “ “ “ (Patients) \$3 50	
{ 4965	“ “ “ “ “ “ Single, Youths.....	2 00
{ 4965	“ “ “ “ “ “ (Patients) \$3 00	
{ 4966	“ “ “ “ “ “ Double, “	2 50
{ 4966	“ “ “ “ “ “ (Patients) \$4 00	
*4967	Chase's Extension Cedar Pad Truss, Single, Adults.....	1 50
{ 4968	“ “ “ “ “ “ Double, “	2 00
{ 4968	“ “ “ “ “ “ (Patients) \$5 00	
*4969	“ “ “ “ Enamel Pad “ Single, Infants.....	1 25
*4970	“ “ “ “ “ “ Double, “	2 25
*4970	“ “ “ “ “ “ Youth's.....	2 25
{ 4971	“ “ “ “ “ “ Single, “	1 50
{ 4971	“ “ “ “ “ “ (Patients) \$2 50	
*4972	Foster's Ratchet Adjustable Enamel Pad Truss, Single, Adults.....	2 00
{ 4973	“ “ “ “ “ “ Double, “	4 00
{ 4973	“ “ “ “ “ “ (Patients) \$8 00	
*4974	German Truss, Single, Adults, with under strap.....	2 00
*4975	Elastic Band Enamel Pad Truss, Single, Adults.....	1 50
*4976	“ “ “ “ “ “ Double, “	2 00
{ 4977	“ “ “ “ “ “ Single, Youths.....	2 00
{ 4977	“ “ “ “ “ “ (Patients) \$3 00	
{ 4978	“ “ “ “ “ “ Double, “	2 50
{ 4978	“ “ “ “ “ “ (Patients) \$4 00	
{ 4979	“ “ “ “ “ “ Single, Infants.....	2 00
{ 4979	“ “ “ “ “ “ (Patients) \$3 00	
{ 4980	“ “ “ “ “ “ Double, “	2 50
{ 4980	“ “ “ “ “ “ (Patients) \$3 50	
*4981	Best Common Chamois Pad Truss, Single.....	1 00
{ 4982	“ “ “ “ “ “ Double.....	1 50
{ 4982	“ “ “ “ “ “ (Patients) \$3 00	
		PATIENTS. PHYSICIANS.
4983	Hard Rubber Truss, any style Pad, Single, Adults.....	\$ 4 00 \$2 50
4984	“ “ “ “ “ “ Double, “	6 00 4 50
4985	“ “ “ “ “ “ Single, Infants	2 50 1 50
4986	“ “ “ “ “ “ Double, “	3 00 2 00
4987	“ “ “ “ “ “ Single, Youths.....	2 50 1 50
4988	“ “ “ “ “ “ Double, “	3 00 2 00
4989	Celluloid Truss, any style Pad, Single, Adults.....	5 00 3 50
4990	“ “ “ “ “ “ Double, “	8 00 5 00
4991	“ “ “ “ “ “ Single, Infants.....	2 50 1 75
4992	“ “ “ “ “ “ Double, “	3 50 2 50
4993	“ “ “ “ “ “ Single, Youths.....	3 00 2 25
4994	“ “ “ “ “ “ Double, “	4 00 3 00
4995	Fry's Patent Truss, Single, Adults.....	5 00 3 75
4996	S. & S. Radical Cure Truss, Single, Adults.....	6 00 4 00
4997	“ “ “ “ “ “ Double, “	10 00 7 50

(Illustrated on pages 796 to 801.)

UMBILICAL TRUSSES.

FIG.		PATIENTS.	PHYSICIANS.
*4998	Bow (spring) Umbilical Truss, Enamel Pad, Adults	\$4 00	\$2 50
*4999	" " " " " " Youths.....	3 00	2 00
*4999	" " " " " " Infants.....	2 00	1 00
5000	Elastic Umbilical Truss, Celluloid Pad, Adults.....	4 00	3 00
5001	" " " " (extra large) Celluloid Pad, Adults..	5 00	3 75
5002	" " " " Celluloid Pad, Youths.....	3 00	2 00
5003	" " " " " " Infants.....	2 50	1 75
*5004	Soft Rubber Umbilical Truss, 10 to 18 inches, Infants....	1 00	75
*5004	" " " " " " Youths.....	1 00	75
5005	Empire Umbilical Truss.....	1 00	75

ABDOMINAL SUPPORTERS.

		PHYSICIANS.
*5006	All Silk and Rubber Abdominal Supporters..... Silk, \$7 50 Cotton, \$ 6 00	
*5007	Fine French (Silk Front) " "	2 50
{ 5008	" " (Linen Front) " "	2 00
{ 5008	" " " " " " (Patients) \$4 00	
*5009	London Abdominal Supporter.....	1 50
*5010	Gray & Foster's Abdominal Supporter.....	1 50
*5011	Mrs. Bett's " "	3 50
{ 5012	Linguist's " "	2 00
{ 5012	" " " " (Patients) \$3 00	
*5013	Empire " "	1 13
{ 5014	Livingston's " "	2 50
{ 5014	" " " " (Patients) \$4 00	
*5015	Fitch's " "	2 50
5016	Frictional " "	1 85
*5017	Improved Spring " "	3 75
*5018	Noeggerath's " "	3 50
*5019	Thomas' " "	4 00
*5020	Spring Self Adjusting Abdominal Supporter.....	3 00
*5021	Doily Belt (for Menstrual Period) Abdominal Supporter.....	50
*5022	Sanitary Pads " "per doz.	60

SUSPENSORY BANDAGES.

*5025	Miliano's Scrotal Compressor.....	\$ 1 25
*5026	Howe's " "	2 40
*5027	Carroll's " "	1 00
*5028	Rawson's No. 1 Suspensory Bandage.....	1 10
*5029	" " No. 1½ " "	1 30
*5029	" " No. 2 " "	1 50
*5029	" " No. 3 " "	1 85
*5029	" " No. 4 " "	2 25
*5029	" " No. 5 " "	2 65
*5029	" " No. 6 " "	3 75
5030	Schnoter's Silk " "	1 10
5031	" " Linen " "	75
5032	" " Cotton " "	60
*5033	Syracuse No. 10 " "	30
*5033	" " No. 16 " "	40
*5033	" " No. 21 " "	60
*5033	" " No. 26 " "	75
*5033	" " No. 31 " "	95
*5033	" " No. 36 " "	2 25
5034	Sharp & Smith's Hand Made Silk Suspensory No. 1.....	75
5035	" " " " " " No. 2.....	60
5036	" " " " " " Cotton " " No. 5.....	38
5037	" " " " " " Silk, Extra Small Suspensory.....	60
5038	" " " " " " Silk, Extra Large Suspensory	1 15

SHOULDER BRACES.

*5040	Laced Back Shoulder Brace, Ladies.....	\$ 1 00
*5041	Steel " " " "	1 00
5042	Fancy Laced Back Shoulder Brace, Ladies.....	2 00
*5043	G. & F. " " " " (4 sizes).....	1 50
*5044	" " " " " " Mens.....	2 00
*5044	" " " " " " Youths.....	1 75
*5044	" " " " " " Boys.....	1 50
*5045	London Shoulder Brace, all sizes.....	75

SHOULDER BRACES.

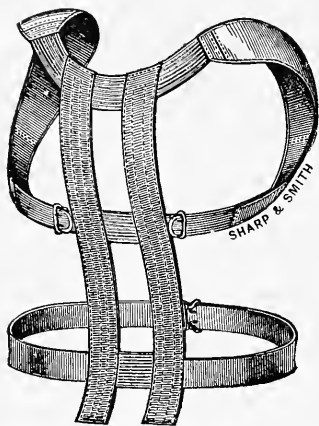


Fig. 5041.—Steel Back
Shoulder Brace.....\$2 00

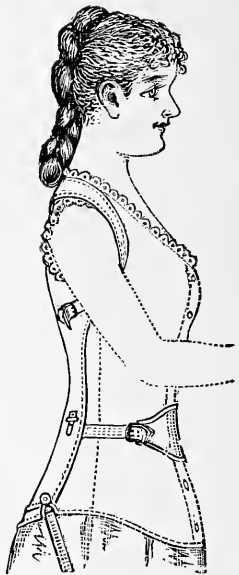
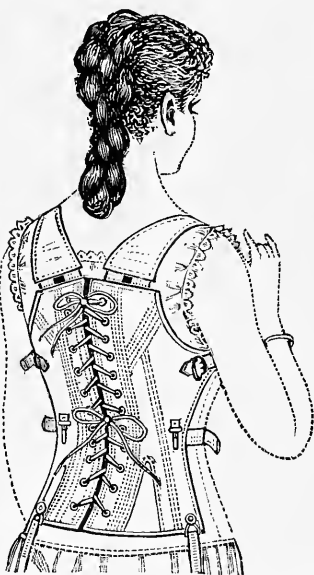


Fig. 5043.—G and F Ladies' Laced Back
Shoulder Braces.....\$1 50



Fig. 5040.—Steel Lace Back
Shoulder Brace....\$2 50



Fig. 5044.—G and F Laced Back Brace.
Men's \$2 50. Youth's \$2 25. Boys' \$2 00

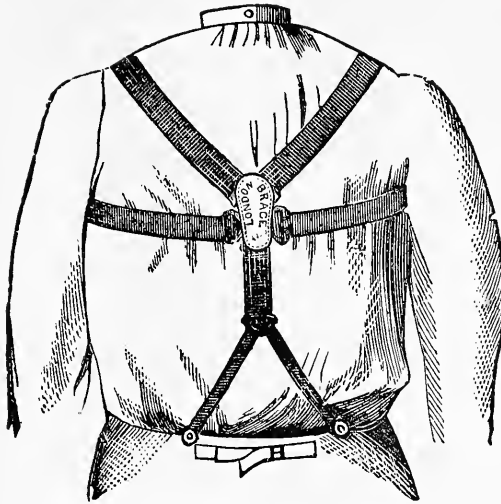


Fig. 5045—London Shoulder Brace, \$1.25.

MISCELLANEOUS RUBBER GOODS.

Pure Gum Bandages, for Varicose Veins and Swellings.

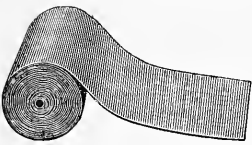


Fig. 5050

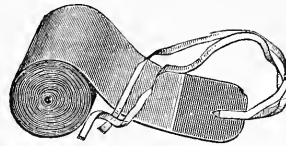


Fig. 5051

Fig. 5051—Physicians' Net Prices.

2 inch x 6 feet.....	\$0 50	2½ inch x 12 feet.....	\$1 00
2 " x 9 "	65	2½ " x 15 "	1 25
2 " x 10½ "	75	3 " x 6 "	75
2 " x 12 "	85	3 " x 9 "	90
2 " x 15 "	1 00	3 " x 10½ "	1 00
2½ " x 6 "	65	3 " x 12 "	1 25
2½ " x 9 "	75	3 " x 15 "	1 50
2½ " x 10½ "	85		

All of our Bandages are of Pure Gum, and the Prices quoted are on the *medium weight* bandage, which is generally used.

Fig. 5050 represents the "plain bandage" without the tapes that are shown in Fig. 5051.

MISCELLANEOUS RUBBER GOODS—BANDAGES.

Fig. 5051—Genuine Martin's Bandages.

SIZES AND PRICES.

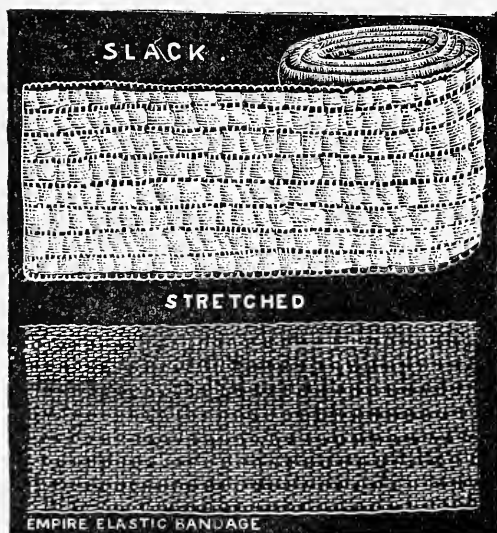
No.	Length.	Width.	Thickness, Stub's Wire Gauge.	Price.
I	10½ feet.	3 in.	22	\$2 00
IA	10½ "	3 "	24	1 75
IB	10½ "	3 "	28	1 50
2	21 "	3½ "	22	4 50
2A	21 "	3½ "	24	4 00
2B	21 "	3½ "	28	3 00
3	6 "	2¼ "	22	75
3A	6 "	2¼ "	24	60
4	15 "	3½ "	20	4 00
5	5 "	3½ "	20	1 30
6	7½ "	3½ "	20	2 00
7	14 "	3 "	24	2 00
8	14 "	3 "	28	1 75
9	21 "	3 "	22	4 00
9A	21 "	3 "	24	3 00
9B	21 "	3 "	28	2 50
0	12 "	2 "	22	1 75
1	15 "	2¼ "	22	2 25
12	2 "	2¼ "	22	50
13	2 "	3 "	22	60

SHARP & SMITH,

Sole Agents for Chicago.

The Empire Elastic Bandage, Specially Adapted for Varicose Veins.

Fig. 5052.



THE ADVANTAGES OF THIS BANDAGE ARE:

1st. Its Porosity—It never causes itching, rash, or ulceration under the bandage.

2d. Its Elasticity, which will enable the surgeon or nurse to put it on at any required tension, and which will follow a swelling up or down, as the case may be, a feature unknown to any other bandage.

3d. Its Absorbent Properties.

4th. Its Easy Application to any part of the body, not being necessary to fold it over, as with other bandages, as it follows itself with equal uniformity around any part of the anatomy.

5th. Its Self-holding Qualities. No bother with pins, needles and thread, or strings, so tiresome to surgeons, as simply tucking the end under the last fold insures its permanent stay, until its removal for purpose of cleanliness.

6th. The only bandage that is Superior to the Elastic Stocking for varicose veins.

5052

PRICE LIST OF EMPIRE ELASTIC BANDAGES.

2 in. x 3 yds. (stretched).....	\$0 30	2 in. x 5 yds. (stretched).....	\$0 50
2½ in. x 3 yds. ".....	40	2½ in. x 5 yds. ".....	55
3 in. x 3 yds. ".....	45	3 in. x 5 yds. ".....	75

MISCELLANEOUS RUBBER GOODS.

SITWELL'S WATER BANDAGES.—Hot or Cold.

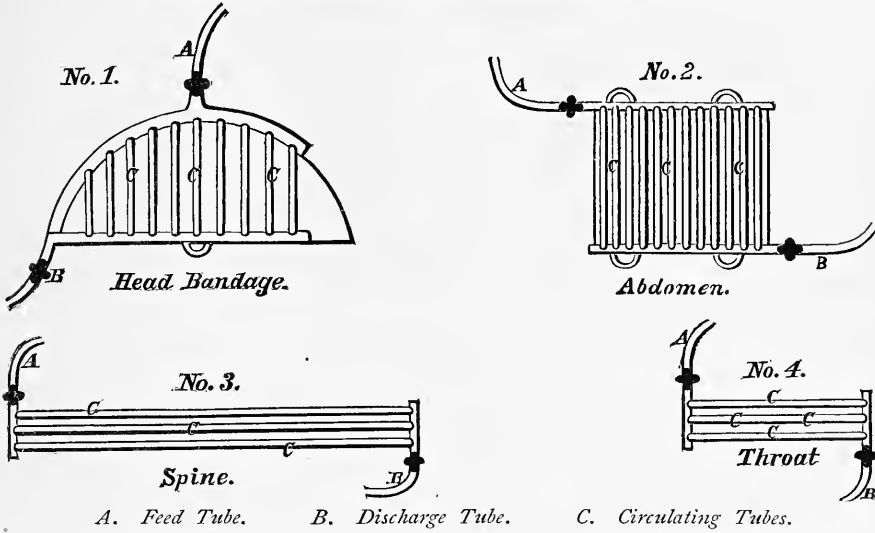


Fig. 5053	No. 1, for the Head.....	\$ 7 50
" 5054	No. 2, for the Abdomen.....10x7 in.	\$5 50 10x12 in. 6 00
" 5055	No. 3, for the Spine.....	4 00
" 5056	No. 4, for the Throat.....	3 00

The above bandages will be found invaluable in the treatment of Brain Fever, Concussion of the Brain, Sun Stroke, Typhoid Fever, Puerperal Fever, Diphtheria, and any ailments where the temperature requires to be diminished, sustained, or heightened.

DWIGHT ROBERTS' PATENT HOT WATER BAGS.

These bags are made of fine white rubber, vulcanized under the Goodyear Process, have nickel-plated stoppers, and are warranted perfect. The face bag (see Fig. 5057) is oval shaped, to use around the nose or face.

The Throat Bag (see Fig. 5058) for HOT WATER is curved to fit the neck, with a rubber band and buckle that holds the heat closely to the throat, opening the pores, and softening the skin.

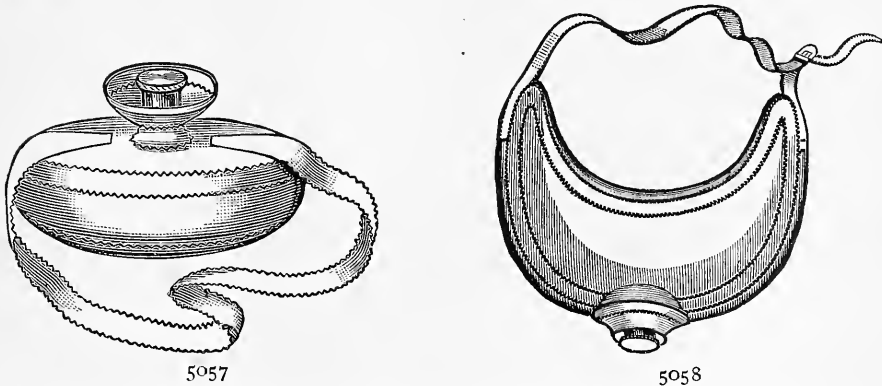


Fig. 5057	Roberts' Face Bag.....	\$0 75	Fig. 5058	Roberts' Throat Bag....	\$1 10
" 5059	Ice Bags, either of the above patterns.....	each			1 10

WATER COILS.

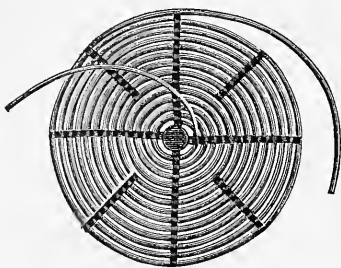


Fig. 5060—Round Water Coils.

Diameter	5 inch	.....	\$ 1 15
"	7 "	.....	1 50
"	9 "	.....	1 85
"	11 "	.....	2 25
"	13 "	.....	2 65
"	15 "	.....	3 00

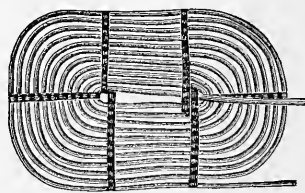


Fig. 5061—Oblong Water Coils.

5x3 inches	.....	\$ 1 15
7x4 "	.....	1 50
9x5 "	.....	1 85
10x6 "	.....	2 25
11x7 "	.....	2 65
11x8 "	.....	3 00

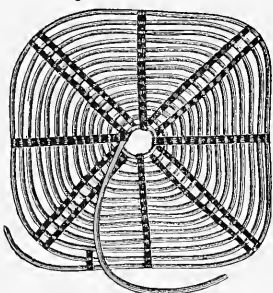


Fig. 5062—Square Water Coils.

6x6 inches	.....	\$ 1 85
8x8 "	.....	2 25
10x10 "	.....	3 00
12x12 "	.....	3 75
14x14 "	.....	4 50

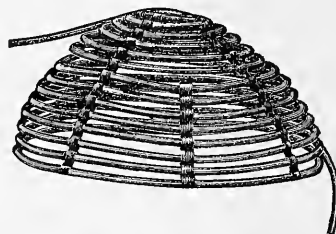


Fig. 5063—Head Coils.

7 in. diameter, 4 in. deep	.....	\$ 2 25
7 " " 5 " "	.....	2 65

These coils (Fig. 5063) are made of extra heavy tubing, which will stand a reasonable amount of pressure without stopping the flow of water.

Fig. 5063-A—Throat Coils.

9 in. x3 in.	.....	\$ 1 25	11 in. x3 in.	.....	\$ 1 80
10 " x3 "	.....	1 50	12 " x3 "	.....	2 10

These coils (Fig. 5063 A) are finished with rings at each end, and can be easily adjusted by means of a tape or string.

These Ventilated Water Coils are for increasing, sustaining or reducing the temperature as may be desired. They are made (with the exception of the head coil, Fig. 5063) of light pure gum, steam cured tubing which gives water enough to produce the desired effect, reduces the weight and at the same time makes a coil which has a free passage through it, and is not liable to get clogged or stopped up. By leaving a space between each coil of the tubing, a free circulation of air is insured, the weight of the coil is reduced, and they will affect the temperature quicker than coils made without the air space. In addition to the cement used in putting the coils together, they are stitched with silk which increases the strength, and adds greatly to their durability.

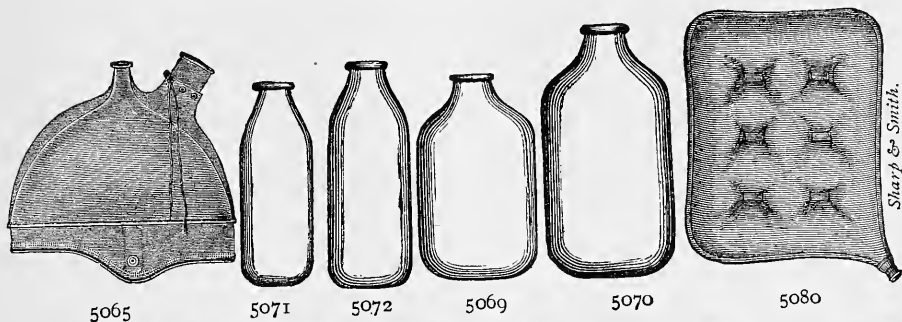
Coils of any shape or size made to order, of light or heavy tubing.

MISCELLANEOUS RUBBER GOODS.

*5065	Rubber Ice Cap, double	.....	\$2 50 to	\$ 3 00
*5068	Spinal Ice Bags	.....	1 50 to	2 00
*5069	No. 1, Spinal Ice Bag	.....		50
*5070	No. 2, " "	.....		50
*5071	No. 3, Head " "	.....		75
*5072	No. 4, " "	.....		75
*5073	Oval Gas Bags	.....	\$ 3 00 to	8 00
*5076	Air Beds, with or without Pillow	25 00 to	50 00

CONTINUED ON NEXT PAGE.

MISCELLANEOUS RUBBER GOODS.



5065

5071

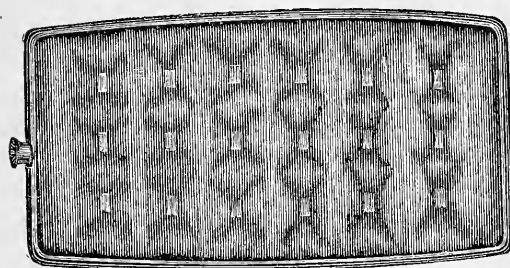
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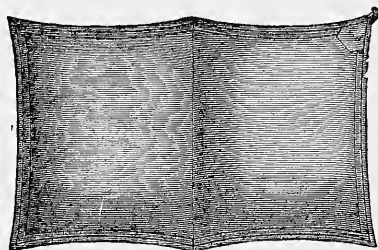
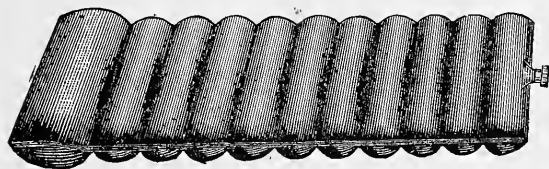
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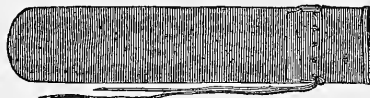
Sharp & Smith.



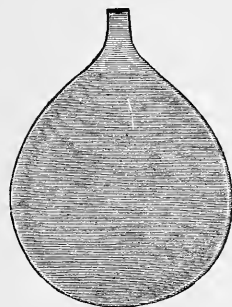
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Sharp & Smith.
5078

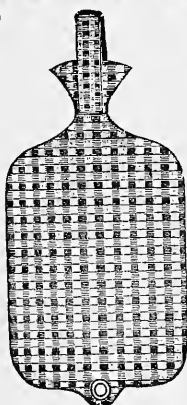
5076



5068



5073



5082



5083



5081

FIG.

*5077	Water Bed.....	\$15 00 to	50 00
*5078	Air Pillow.....	2 00 to	3 50
*5080	Water Bags.....	4 00 to	6 00
*5081	Water Bottles, from 1 quart to 1 gallon.....	1 50 to	3 00
*5082	Flannel Covered Water Bottles, from 1 quart to 1 gallon.....	1 75 to	3 50
*5083	Alpha Water Bottle.....	1 50 to	3 00

See pages 812 and 813 for further Prices and Description.

MISCELLANEOUS RUBBER GOODS.

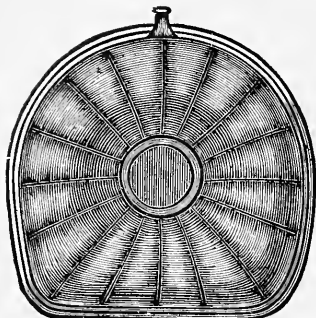


Fig. 5092 — Half Round Chair Cushion.....\$5 00

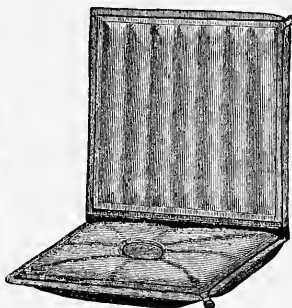


Fig. 5089 — Chair Cushion, \$4 00 to 6 00.

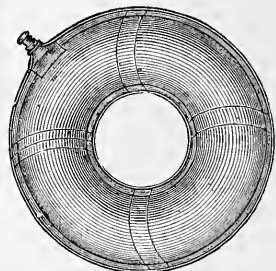


Fig. 5086 — Invalid Cushion, \$2 00 to 4 00.

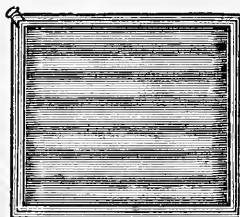


Fig. 5090 — Square Reeded Chair Cushion.....\$2 50 to 4 00



Fig. 5084 — Goodyear Crown Water Bottle, \$1 75 to 3 00.

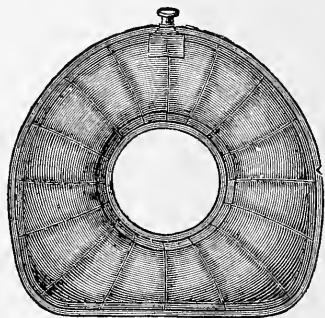


Fig. 5093 — Hospital Cushion, \$5 00.

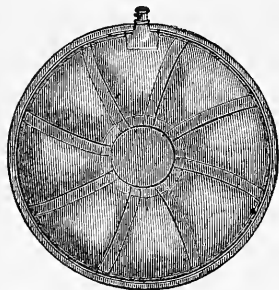


Fig. 5087 — Chair Cushion, \$3 50 to 4 00.

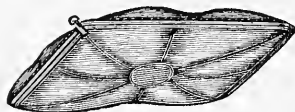
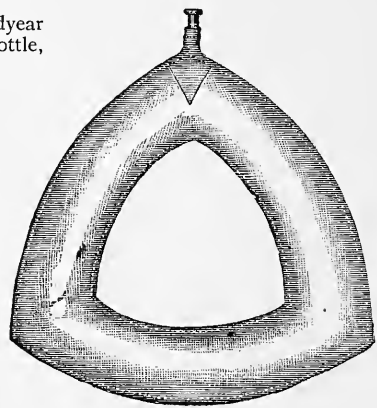


Fig. 5091 — Center Reeded Chair Cushion.....\$2 50 to 4 00



5094

*Fig. 5094 Alpha Triangular Invalid Cushion.....\$2 00 to 3 50
Fig. 5095 Alpha Ventilated Invalid Ring.....2 00 to 4 50

See Page 813 for further Prices and Descriptions.

MISCELLANEOUS RUBBER GOODS,

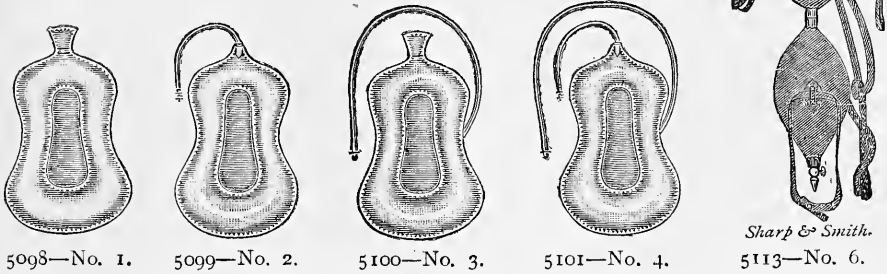


FIG.

5098—No. 1—Combination Bed Pan, with Funnel.....	\$5 00
5099—No. 2—Combination Bed Pan with Funnel and Inflating Tube.....	5 00
5100—No. 3—Combination Bed Pan with Funnel and Outlet Tube.....	6 00
5101—No. 4—Combination Bed Pan with Inflating and Outlet Tube.....	6 00
5113—No. 6—Female Day Urinal.....	2 50

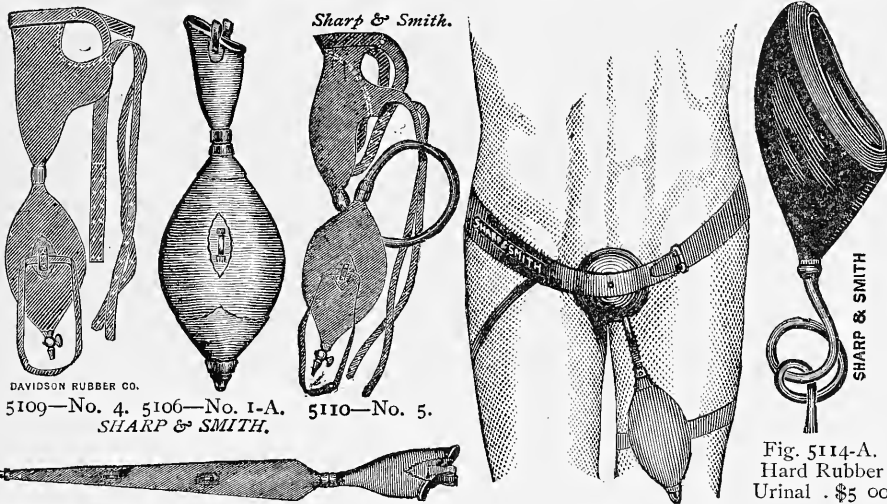
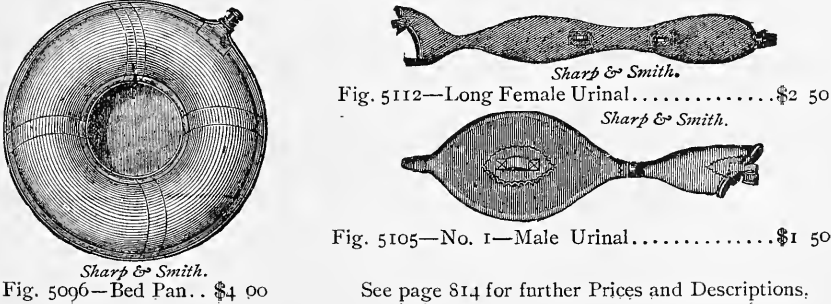


Fig.

5109—No. 4—Male Urinal (French Style).....	\$3 50
5106—No. 1-A—Male Urinal (large size).....	1 75
5110—No. 5—Male Urinal, Day and Night.....	4 50
5108—No. 3—Long Male Urinal.....	2 00
5114-B—Instrument for Extrophy of the Bladder.....	



MISCELLANEOUS RUBBER GOODS.—Net Prices.

ICE CAPS.

FIG.		
*5065	White Helmet Shape Ice Cap, No. 1.....	\$ 1 50
*5065	" " " " " No. 2.....	1 75
*5065	" " " " " No. 3.....	2 00
5066	Pure Gum Flat Shape Ice Cap, No. 4.....	1 50

ICE BAGS.

5067	Pure Gum Throat Ice Bags, No. 1, 7 inches long.....	\$ 75
5067	" " " " " No. 2, 8 " ".....	75
5067	" " " " " No. 3, 9 " ".....	90
5067	" " " " " No. 4, 10 " ".....	90
5067	" " " " " No. 5, 11 " ".....	1 00
*5068	White Spinal Ice Bags, No. 11, 12 inches long.....	1 00
*5068	" " " " " No. 12, 14 " ".....	1 00
*5068	" " " " " No. 13, 16 " ".....	1 00
*5068	" " " " " No. 14, 18 " ".....	1 25
*5068	" " " " " No. 15, 20 " ".....	1 25
*5068	Pure Gum Spinal Ice Bags, No. 21, 12 inches long.....	1 25
*5068	" " " " " No. 22, 14 " ".....	1 25
*5068	" " " " " No. 23, 16 " ".....	1 25
*5068	" " " " " No. 24, 18 " ".....	1 50
*5068	" " " " " No. 25, 20 " ".....	1 50
*5069	" " " " " No. 1.....	35
*5070	" " " " " No. 2.....	35
*5071	" " " Head " " " No. 3.....	50
*5072	" " " " " " " No. 4.....	50

GAS BAGS.

*5073	Pure Gum or Slate Color Oval Gas Bags, 3 gallon.....	\$ 2 00
*5073	" " " " " " " 5 " ".....	2 50
*5073	" " " " " " " 8 " ".....	3 25
*5073	" " " " " " " 10 " ".....	5 25
5074	Slate Color Oblong Gas Bags 18x24 15 gallon.....	7 50
5074	" " " " " 20x30, 25 " ".....	8 50
5074	" " " " " 24x30, 35 " ".....	11 25
5074	" " " " " 30x40, 55 " ".....	14 00
5075	Brass Stop Cocks for Gas Bags.....each—\$0 75 to	1 00

AIR BEDS.

*5076	Air Beds, No. 1, 32x80—with Pillow, \$25.00; without Pillow.....	\$20 00
*5076	" " No. 2, 42x80—" " " 30.00; " ".....	26 50
*5076	" " No. 3, 52x80—" " " 38.00, " ".....	35 00
*5077	Water Beds, No. 1, 24x36.....	12 75
*5077	" " No. 2, 32x80.....	20 00
*5077	" " No. 3, 42x80.....	26 50
*5077	" " No. 4, 52x80.....	35 00

AIR PILLOWS.

*5078	Air Pillows, No. 1, 9x13.....	\$ 1 50
*5078	" " No. 2, 10x16.....	2 00
*5078	" " No. 3, 12x18.....	2 25
*5078	" " No. 4, 14x23.....	2 50
5079	(for Neck).....	3 00

WATER BAGS.

*5080	Water Bags, No. 1, 13x15.....	\$ 3 00
*5080	" " No. 2, 14x14.....	3 00
*5080	" " No. 3, 14x18.....	3 50
*5080	" " No. 4, 16x16.....	3 50
*5080	" " No. 5, 17x19.....	3 75
*5080	" " No. 6, 18x18.....	3 75

*5087	Round Chair Cushion, Rubber and Cloth, No. 1, Diameter, 15 inch.	\$ 25
*5088	“ “ “ “ “ No. 2, “ “ 17 “	2 75
*5089	Invalid “ “ “ “ “ No. 1, with Back and Seat, 16x16 each	5 00
*5089	“ “ “ “ “ No. 2, “ “ (16x16) “ 16x18. “	5 50
*5089	“ “ “ “ “ No. 3, “ “ (16x18) “ 18x18. “	6 00
*5089	“ “ “ “ “ No. 4, “ “ (18x18) “ 18x20. “	6 25
*5090	Chair Cushion, Square Reeded, No. 1, 12x16.	1 75
*5090	“ “ “ “ “ No. 2, 14x16.	2 00
*5090	“ “ “ “ “ No. 3, 16x16.	2 25
*5090	“ “ “ “ “ No. 4, 16x18.	2 50
*5091	“ “ “ “ “ Center Reeded, No. 5, 12x16.	1 75
*5091	“ “ “ “ “ “ No. 6, 14x16.	2 00
*5091	“ “ “ “ “ “ No. 7, 16x16.	2 25
*5091	“ “ “ “ “ “ No. 8, 15x18.	2 50
*5092	“ “ “ “ “ Half Round	3 50
*5093	Hospital Cushion	3 00
*5094	Alpha Invalid Cushion, No. 1, 13 inch.	1 50
*5094	“ “ “ “ “ No. 2, 15 “	1 75
*5094	“ “ “ “ “ No. 3, 17 “	2 00
*5095	Alpha Ventilated Invalid Cushion, No. 1, 9 inch diameter.	1 25
*5095	“ “ “ “ “ No. 2, 10 “ “	1 40
*5095	“ “ “ “ “ No. 3, 11 “ “	1 50
*5095	“ “ “ “ “ No. 4, 12 “ “	1 60
*5095	“ “ “ “ “ No. 5, 13 “ “	1 75
*5095	“ “ “ “ “ No. 6, 14 “ “	1 85
*5095	“ “ “ “ “ No. 7, 15 “ “	1 95
*5095	“ “ “ “ “ No. 8, 16 “ “	2 00
*5095	“ “ “ “ “ No. 9, 17 “ “	2 10
*5095	“ “ “ “ “ No. 10, 18 “ “	2 25

MISCELLANEOUS RUBBER GOODS,—Net Prices.

BED PANS.

FIG.		
*5096	Plain Round Bed Pan.....	\$ 2 75
5097	“ “ “ “ with Discharge Tube.....	3 50
*5098	Combination Bed Pan, No. 1, with Funnel, old style	3 50
*5099	“ “ “ “ No. 2, Inflating Tube, new style	3 50
*5100	“ “ “ “ No. 3, with Funnel and Outlet Tube	4 00
*5101	“ “ “ “ No. 4, with Inflating and Outlet Tube	4 00
5102	Emmet's Bed Pan.....	3 75
5103	Drakely's Bed Pan.....	3 75
5104	“ “ “ “ and Douche.....	5 00
5104-A	Earthen Bed Pan.....	1 00

Jones' Bed Pan and Douche, see page 644.

URINALS.

*5105	Pure Gum Male Urinal, No. 1, for day use.....	\$ 1 00
*5106	“ “ “ “ No. 1-A, for day use (large size).....	1 15
*5107	“ “ “ “ No. 11, for day use (child's).....	1 00
*5108	“ “ “ “ No. 3, for day and night use	1 25
*5109	“ “ “ “ No. 4, for day use.....	2 25
*5110	“ “ “ “ No. 5, for day and night use.....	3 00
5111	“ “ “ “ No. 15, for day and night use. Style of No. 5 (child's size).....	2 50
*5112	Pure Gum Female Urinal, No. 2, for day use.....	1 50
*5113	“ “ “ “ No. 6, for day use	2 25
5114	“ “ “ “ No. 16, for day use.....	2 00
*5114-A	Hard Rubber Urinal.....	3 75
5114-B	Instrument for Extrophy of the Bladder.....	

RUBBER TUBING

5115	Pure Gum Black Rubber Tubing, $\frac{3}{8}$ inch.....	per foot \$0 18
5116	“ “ “ “ $\frac{5}{16}$ “	“ 15
5117	“ “ “ “ $\frac{1}{4}$ “	“ 12
5118	“ “ “ “ $\frac{3}{8}$ “	“ 10
5119	“ “ “ “ $\frac{1}{2}$ “	“ 08
5120	White Rubber Tubing, 1 inch.....	25
5121	“ “ “ “ $\frac{1}{2}$ “	20
5122	“ “ “ “ $\frac{3}{8}$ “	18
5123	“ “ “ “ $\frac{1}{4}$ “	14
5124	“ “ “ “ $\frac{5}{16}$ “	12
5125	“ “ “ “ $\frac{1}{4}$ “	11
5126	“ “ “ “ $\frac{3}{8}$ “	8
5127	“ “ “ “ $\frac{1}{2}$ “	5

Rubber Drainage Tubes and Tubing, see “Miscellaneous and General Surgical Necessities,” and “Index.”

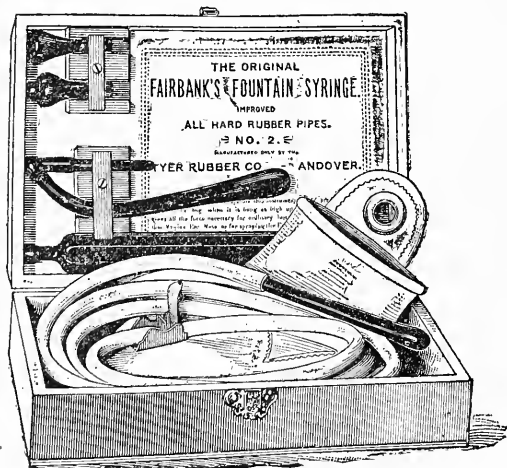


Fig. 5128.—Fairbanks' Improved Fountain Syringe.

This Syringe, like all of our Fountain Syringes, has all Hard Rubber Tubes. The Tubes fit in a “rack” in top of case, and include a Vaginal Irrigator Tube in addition to the other tubes which go with all Fountain Syringes.

These Syringes are put up in fine Polished Wood Cases.

Price.....\$1 25 to 2 25

FOUNTAIN SYRINGES.

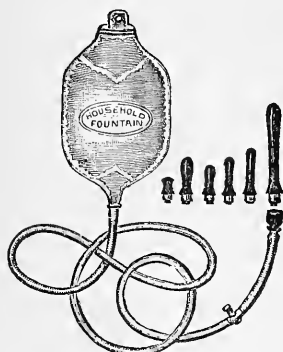


Fig. 5133—Household Fountain Syringes, \$1 25 to 2 25.

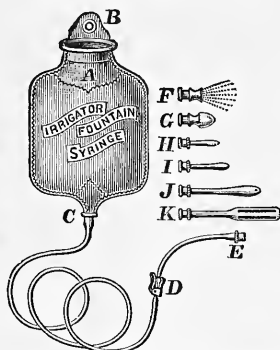


Fig. 5134—Mattson's Irrigator Fountain Syringe, \$2 00 to 3 00

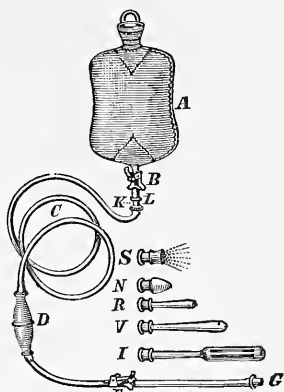


Fig. 5135—Mattson's Combination Fountain Syringe, showing Water Bag ready for use.



Fig. 5136—The Home Fountain Syringe. \$2 00 to to 3 50

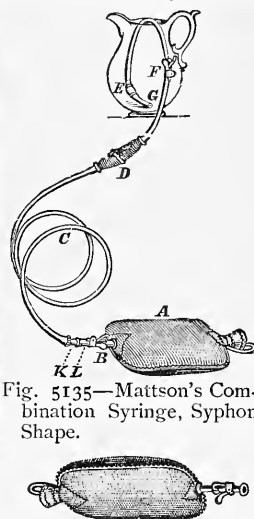
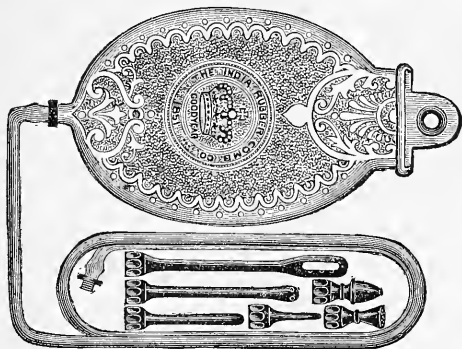


Fig. 5135—Mattson's Combination Syringe, Syphon Shape.

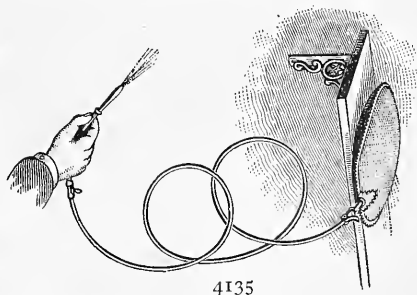
5135

Fig. 5135—Mattson's Combination Fountain Syringe. Bag detached from Syringe, to be used as a water bottle.



5149

Fig. 5135—Mattson's Combination Fountain Syringe. Bag on shelf ready for use.
Fig. 5135—Mattson's Combination Syringe. \$2 50
Fig. 5149—Goodyear Crown Fountain Syringe. \$1 75 to 2 50



4135

FOUNTAIN AND BULB SYRINGES.

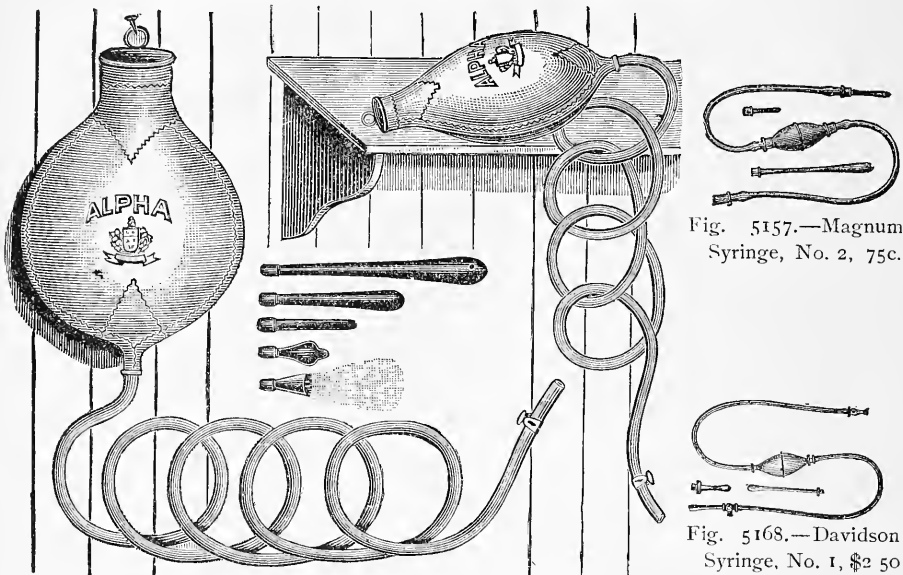


Fig. 5137.—Alpha Fountain Syringe.....\$1 50 to 2 50

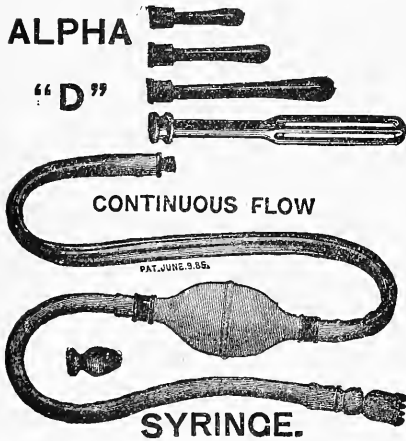


Fig. 5152.—Alpha "D", continuous flow Syringe... ..\$2 00

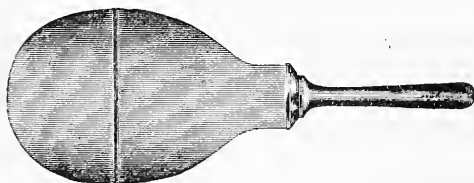


Fig. 5170.—Large Bag Rectum Syringe.. \$2 50

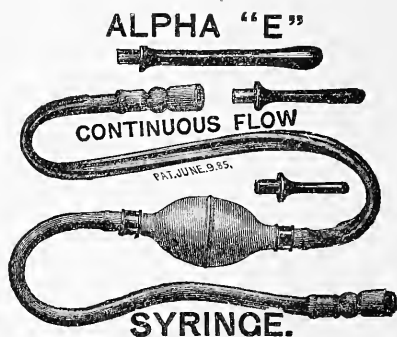


Fig 5153.—Alpha "E", continuous flow Syringe..... \$1 50

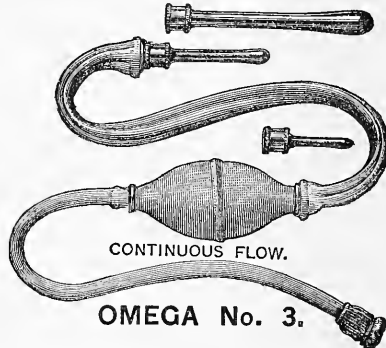
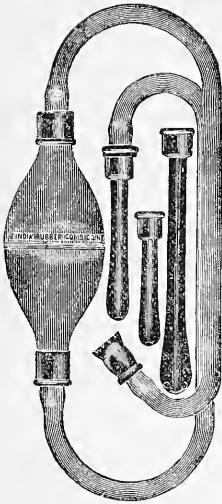


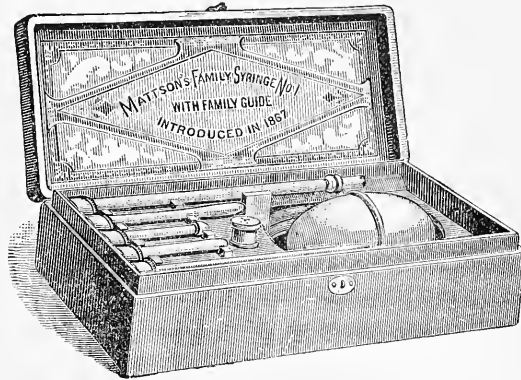
Fig. 5155.—Omega "No. 3", continuous flow Syringe.....\$1 50

See page 818 for other prices and descriptions.

BULB SYRINGES.



5169



5166

- FIG.
*5166 Mattson's No. 1, Family Bulb Syringe.....\$2 50
*5169 Goodyear Crown Bulb Syringe, No. 513.....1 25



Fig. 5163. Mattson's No. 1, Irrigator Bulb Syringe..... \$2 50



Fig 5167. Physicians' Companion Syringe.....\$2 50

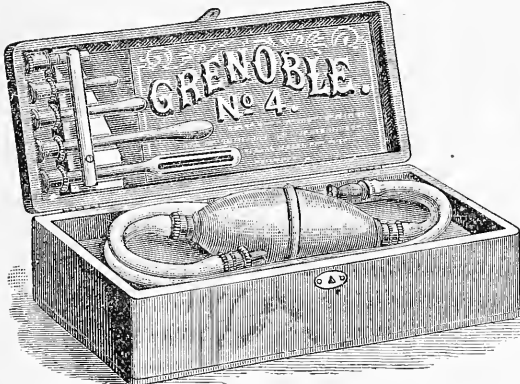


Fig. 5171. Grenoble Syringe, No. 4.....\$2 00

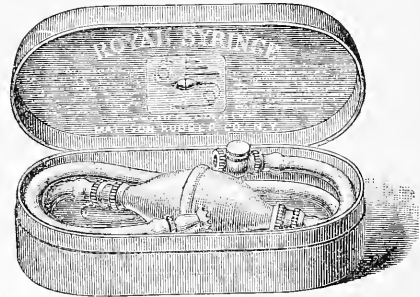


Fig. 5161.—Mattson's No. 1, Royal Bulb Syringe.....\$1 50

See Page 819 for other Prices and Descriptions.

SYRINGES AND BULBS.

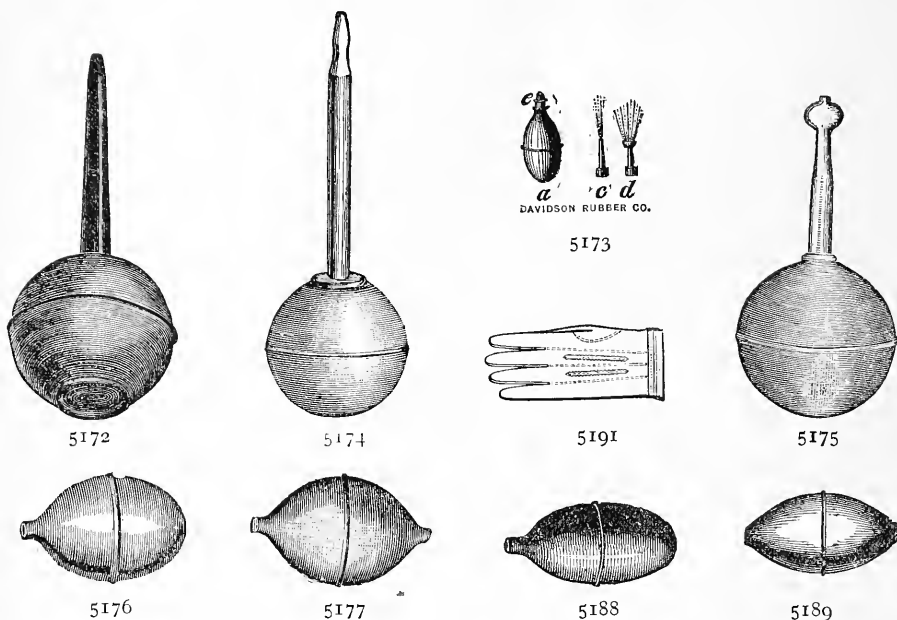


FIG.

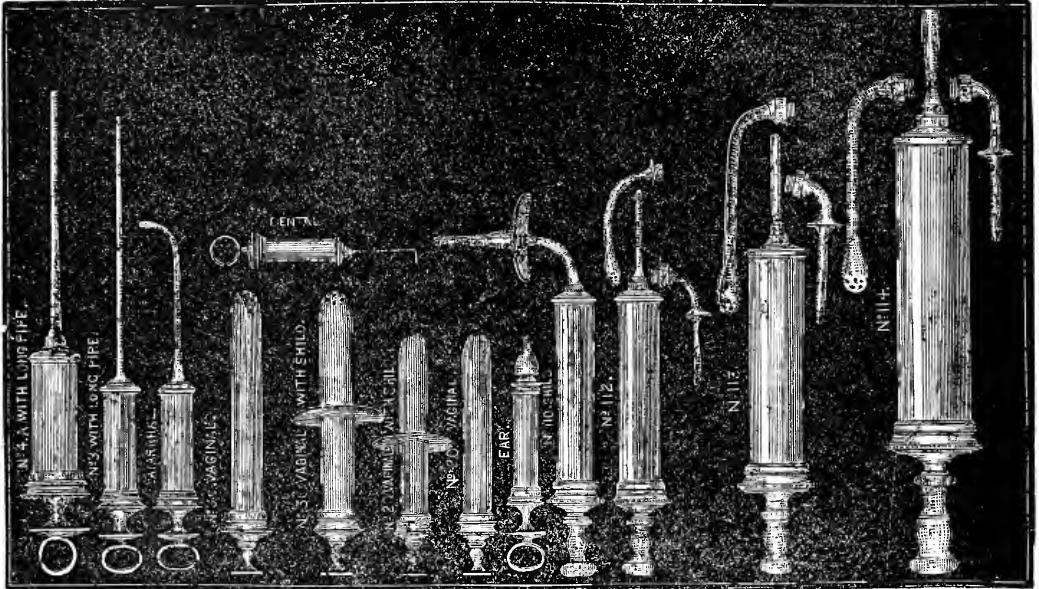
*5172	Pure Gum Ulcer and Ear Syringe.....	\$ 75
*5173	Eye and Ear Syringe.....	1 00
*5174	Bulb Urethral Syringe, Glass Tip.....	1 00
*5175	Bulb Ear Syringe, Glass Tip.....	85
*5176	Single Neck Atomizer Bulb.....	25
*5177	Double Neck Atomizer Bulb.....	25
*5188	Single Neck Syringe Bulb.....	25
*5189	Double Neck Syringe Bulb.....	25
*5191	Dissecting Gloves, per pair ..	\$1 25 to 1 50

FOUNTAIN SYRINGES

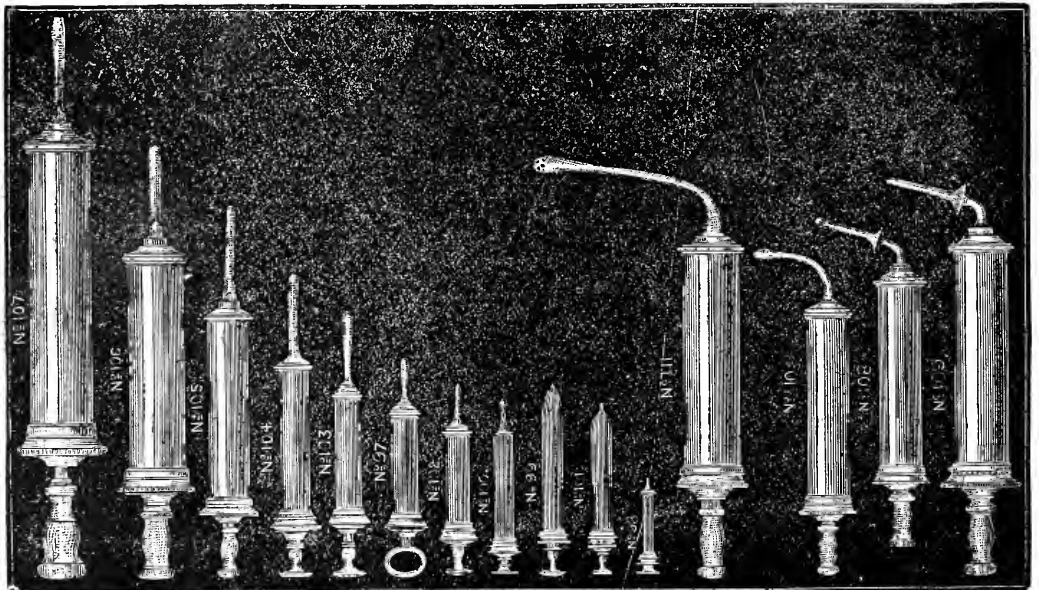
*5128	Fairbanks Fountain Syringe, No. 1, 1 pint.....	\$1 00
*5128	" " " " 2, 1 quart.....	1 25
*5128	" " " " 3, 2 ".....	1 50
*5128	" " " " 4, 3 ".....	2 00
5129	Climax " " " 1, 1 pint.....	1 00
5130	" " " " 2, 1 quart.....	1 20
5131	" " " " 3, 2 ".....	1 55
5132	" " " " 4, 3 ".....	1 70
*5133	Household " " " 11, 1 pint.....	1 50
*5133	" " " " 12, 1 quart.....	1 25
*5133	" " " " 13, 2 ".....	1 35
*5133	" " " " 14, 3 ".....	1 50
*5133	" " " " 15, 4 ".....	1 75
*5134	Mattson's Irrigator Fountain Syringe, No. 1, 2 quart.....	1 50
*5134	" " " " 2, 3 ".....	1 75
*5134	" " " " 3, 4 ".....	2 00
*5135	" Combination " " 3 ".....	1 50

HARD RUBBER SYRINGES.

No.	Each.	No.	Each.	No.	Each.
112.....	\$2 00	30.....	\$1 00	4-A Extra Long Pipe...	\$2 00
113.....	2 00	20 Shield.....	1 00	Dental.....	75
114.....	3 00	30 ".....	1 50	Ear.....	1 00
20.....	75	3 Extra Long Pipe...	1 25	Catarrhal.....	1 25



No.	Each.	No.	Each.	No.	Each.
97.....	\$ 75	103.....	\$ 75	108 ..	\$1 75
98.....	50	104.....	1 00	109.....	2 50
99.....	60	105.....	1 25	110 ..	1 50
100.....	50	106.....	1 75	110 Shield.....	1 75
101.....	60	107 ..	2 50	111.....	2 00
102.....	60				



ELECTRIC BATTERIES AND APPARATUS.

McINTOSH BATTERIES—Discount 20 per cent.

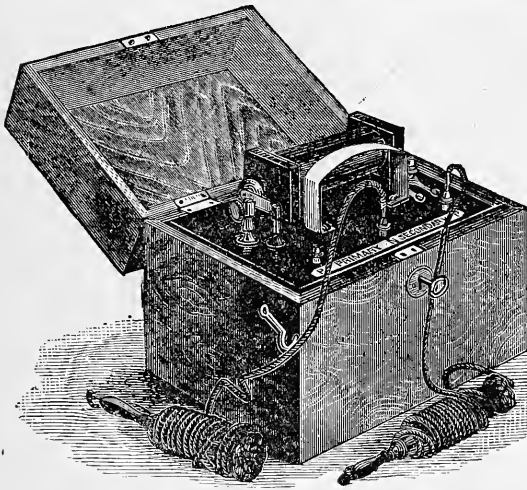


Fig. 5250.—McIntosh Family Faradic Battery . . . \$10 00

There is a constant demand for a low priced Faradic Battery, not a mere toy, such as is offered to the public, but one made of good material, in a substantial manner, and that will give a smooth, even current, suitable for family use. This has induced us to make the above battery, which we believe will meet this want.

It is made on the same principle as our higher priced Faradic Batteries, and is portable. It is not intended to take the place of the physician's battery, but for domestic use.

It is put up in a neat black-walnut case $6\frac{1}{2}$ inches long, 6 inches high, and 5 inches wide, with lock and handle, and furnished with electrodes and conducting cords, all the metal is finely nickel plated.

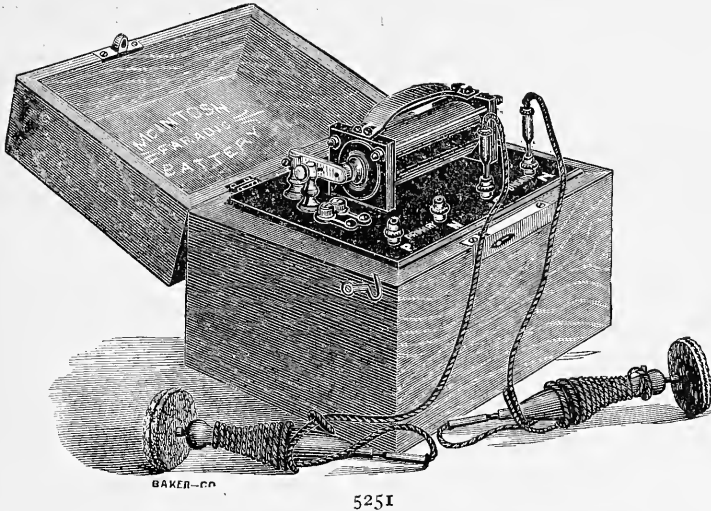


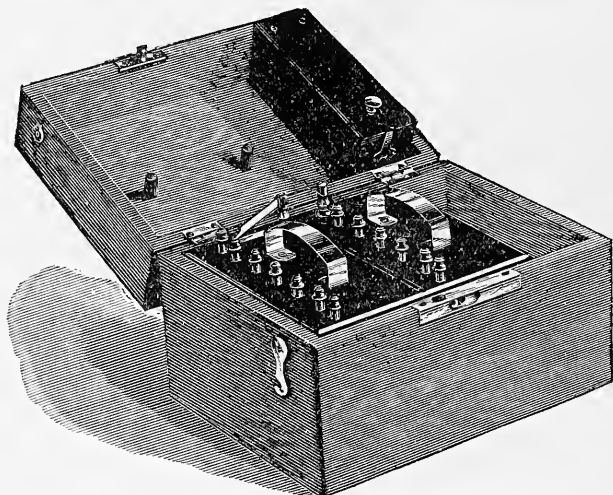
Fig. 5251.—McIntosh Physicians' Faradic Battery.

It has a hard rubber cell and drip-cup. First-class induction coil, with polished hard rubber ends and cover. The coil, binding posts and rheotome are placed on the upper surface of a polished hard rubber plate, the under surface of which is covered with soft rubber, and also holds the zinc and carbons. When the elements are removed from the cells and placed in the drip-cup, this plate is securely clamped over them, and makes them water tight. The connections of the coil with the zinc and carbons are permanent.

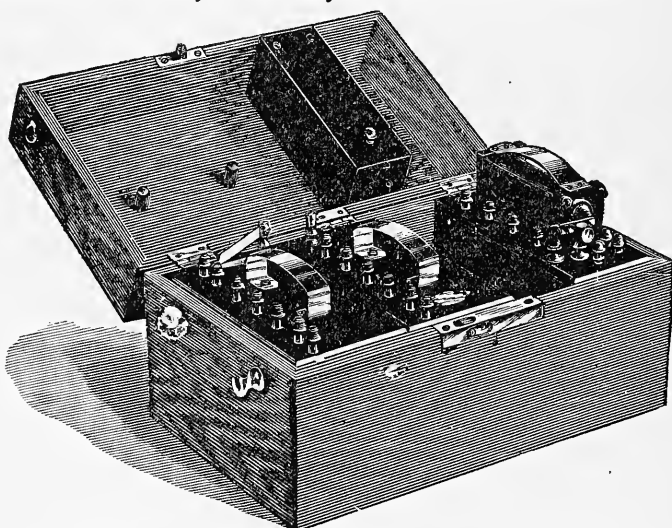
To use this battery, it is only necessary to loosen the thumb-screws and raise the elements from the drip cup and place in the cell, and the battery will commence to work at once; connect one end of the conducting cords with the binding posts, and the others with the sponge electrodes, and it is ready to use.

It is very convenient for a physician's visiting battery, or family use, as it is light and perfectly portable, and gives sufficient strength to treat any case where the Faradic or induced current is needed.

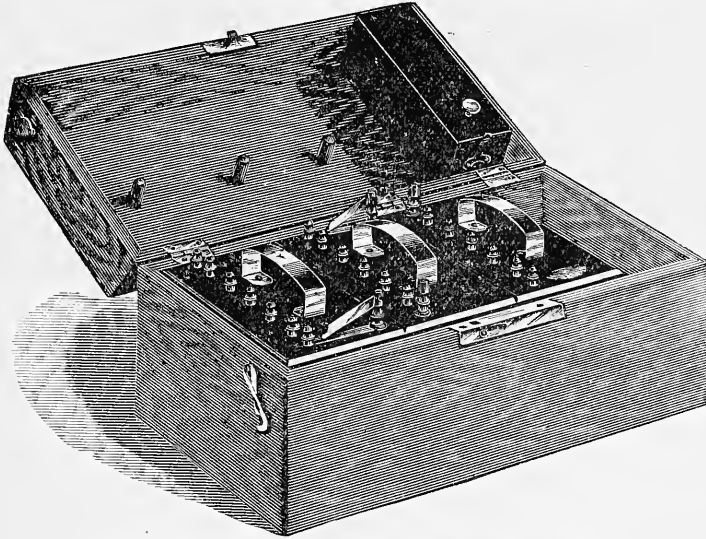
Price of battery with first-class sponge electrodes, and our new cable conducting cords... \$18 00

ELECTRIC BATTERIES AND APPARATUS.**McINTOSH BATTERIES—Discount 20 per cent.****Fig. 5252.—Twelve-Cell Galvanic Battery.**

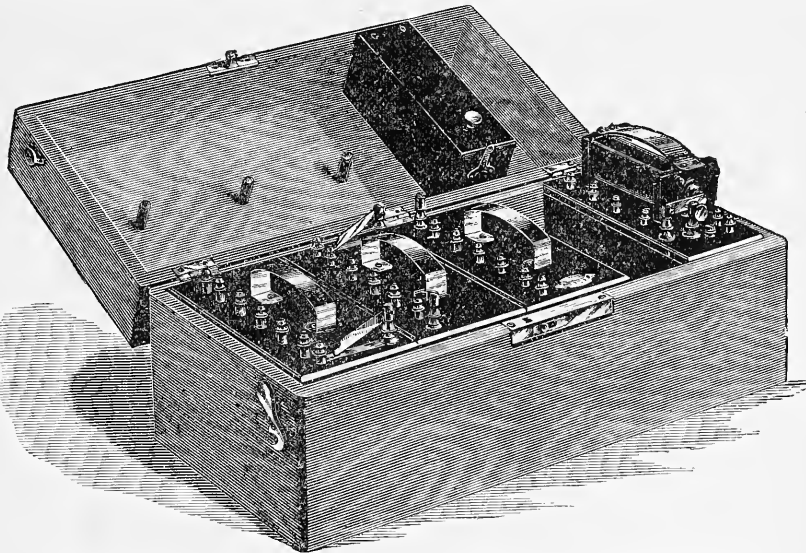
In a polished black-walnut case, $10\frac{1}{2}$ inches long, $8\frac{1}{4}$ inches wide, $7\frac{1}{4}$ inches high, metal work all nickel-plated, lock and handle, sponge electrodes, cable conducting cords, and hard rubber electrode box. This is a very convenient visiting Battery, as it only weighs eleven pounds, and gives a galvanic current of sufficient intensity to treat any case where it is indicated. Price \$30 00

**Fig. 5253.—Twelve-Cell Combined Galvanic and Faradic Battery.**

Same style of case and finish as the above, $13\frac{1}{2}$ inches long, $8\frac{1}{4}$ inches wide, $7\frac{1}{4}$ inches high, with first-class Faradic Coil, polished hard rubber ends and cover, extra large cell to run the coil, electrodes, our new cable conducting cords and hard rubber electrode box. This Battery gives a galvanic current same as above described, and a Faradic current of sufficient strength to treat any case. Price \$40 00.

ELECTRIC BATTERIES AND APPARATUS.**McINTOSH BATTERIES—Discount 20 per cent.****Fig. 5254.—Eighteen-Cell Galvanic Battery.**

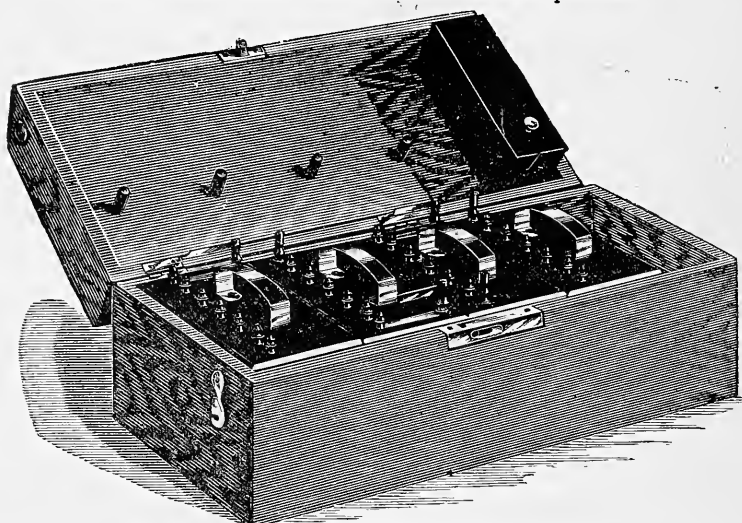
In a polished black walnut case, $14\frac{1}{4}$ inches long, $8\frac{1}{4}$ inches wide, $7\frac{1}{4}$ inches high, with lock and handle, metal work all nickel plated, first class sponge electrodes, cable conducting cords and hard rubber electrode box. This is the most convenient size for a physician's use, as it gives a powerful current, and weighs but little over 15 pounds. Price \$40 00.

**Fig. 5255.—Eighteen-Cell Combined Galvanic and Faradic Battery.**

Same style of case and finish as the above, 17 inches long, $8\frac{1}{4}$ inches wide, $7\frac{1}{4}$ inches high, with first class Faradic Coil, polished hard rubber ends and cover, extra large cell to run the coil, sponge electrodes, cable conducting cords, and hard rubber electrode box. This is the most convenient Battery for a physician's use, as it gives a very intense galvanic current, and a Faradic current of sufficient strength to treat any case, and is perfectly portable. Price \$52 50.

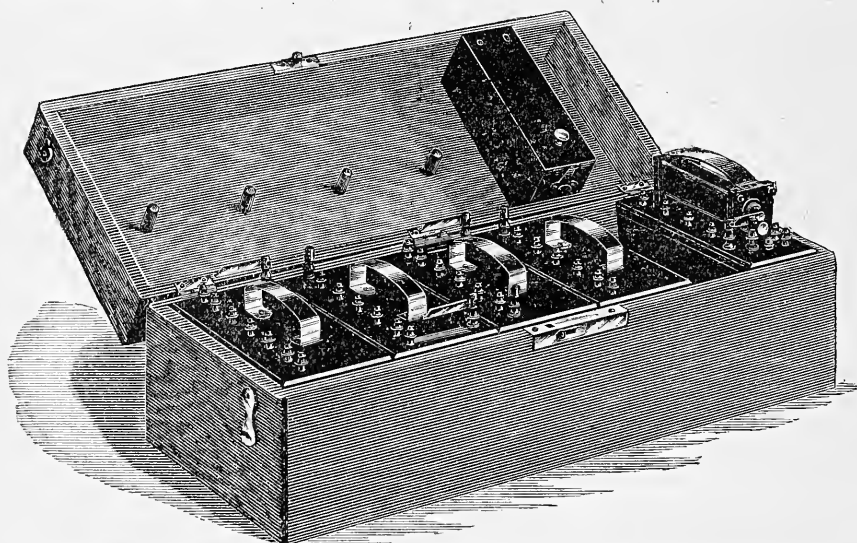
ELECTRIC BATTERIES AND APPARATUS.

McINTOSH BATTERIES—Discount 20 per cent.

**Fig. 5256.—Twenty-Four-Cell Galvanic Battery.**

Same style case, finish; electrodes and cords as the eighteen-cell battery. Case is 18 inches long, $8\frac{1}{4}$ inches wide, and $7\frac{1}{4}$ inches high, with lock and handle and hard rubber electrode case; weighs less than 20 pounds.

This battery gives a galvanic current of great intensity, sufficient to treat any case where it is indicated. Price \$55 00.

**Fig. 5257.—Twenty-Four-Cell Combined Galvanic and Faradic Battery.**

Same style of case and finish as the above, $20\frac{3}{4}$ inches long, $8\frac{1}{4}$ inches wide, $7\frac{1}{4}$ inches high, with first-class Faradic Coil, polished hard rubber ends and cover, extra large cell to run the coil, sponge electrodes, cable conducting cords, and hard rubber electrode box.

This battery gives same intensity of galvanic current as the above, and a Faradic current of sufficient strength to treat any case. It weighs only 24 pounds, and is perfectly portable.

Price.....\$67 50

ELECTRIC BATTERIES AND APPARATUS.

McINTOSH BATTERIES—Discount 20 per cent

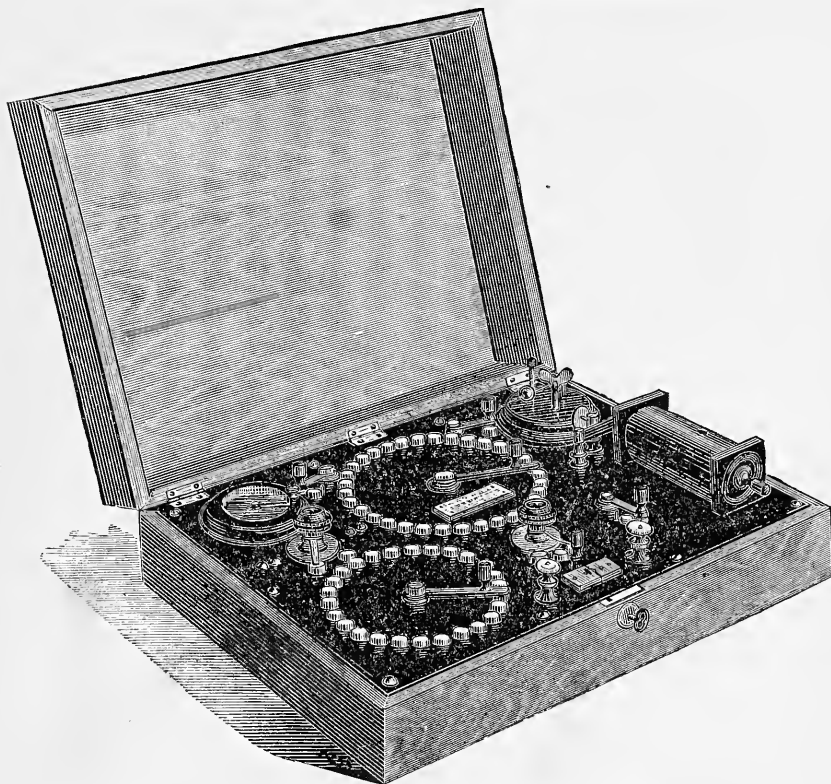


Fig. 5258.—McINTOSH TABLE BATTERY.

This was designed by Dr. McIntosh to meet the wants of physicians who desire a compact and complete office battery. This arrangement is a beautiful piece of work. The following accessories, finely nickel plated, are tastefully arranged on a board of polished hard rubber, 12x16 inches: A Galvanic Switch for thirty-two to sixty cells; an Automatic Rheotome, giving fast or slow interruptions; Galvanometer; Pole Changer; Current Indicator; Binding Posts; large Faradic Coil, with polished hard rubber ends and cover; a Coil Rheostat of twenty-five coils of one hundred ohms' resistance each, whereby from one hundred to two thousand five hundred ohms' resistance can be brought into either the Galvanic or Faradic circuit, by simply moving the circular switch. This can be furnished in black-walnut case, on an office table or cabinet case. This is a very perfect and elegant piece of work, and receives the approval of physicians at sight.

Each instrument is furnished with a thirty-two cell Gravity Battery and connections. This battery can be placed in a closet or a cellar, out of the way, as it requires but very little attention.

Price, as above described, in polished black-walnut case, with

Gravity Battery\$150 00

Any kind of battery cell furnished with the cost of the change added to the above price.

DESCRIPTION OF THE McINTOSH COMBINED GALVANIC AND FARADIC BATTERY.

Fig. 5259, No. 1, shows the hard rubber plate of a section (on the under surface of which is cemented a sheet of soft vulcanized rubber) and binding posts which project through the hard and soft rubber, and screw into the brass piece holding the zinc and carbon couples. The rubber plate on which the couples are clamped project over one side enough to cover the cells when the zinc and carbon plates are placed in the drip-cups. When the cells are not in use, and the lid of the Battery box is closed, it presses on the *spring handle* of the section (5259, No. 1) and holds the soft rubber firmly over the cells and drip-cup. By this arrangement the hydrostat is made water-tight.

Fig. 5260, No. 2, shows a section of six cells and a drip-cup, made of one piece of hard vulcanized rubber. The drip cup is to receive the zinc and carbon couples when not in use.

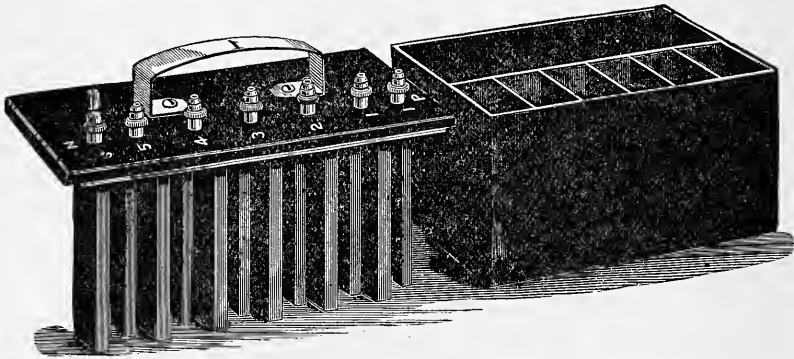


Fig. 5259, No. 1.

Fig. 5260, No. 2.

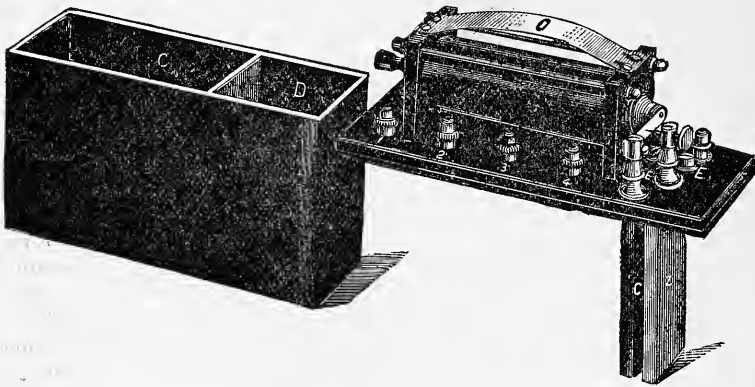


Fig. 5261, No. 3.

Fig. 5262, No. 4.

An extra cell of large size is added to the combined Battery for the purpose of running the Faradic Coil (Fig. 5261, No. 3). This renders the Battery more perfect than any yet offered to the profession. This extra cell gives sufficient power for the Faradic current, and the operator is not obliged to connect and exhaust the current from the galvanic cells. If greater strength is ever needed in an emergency than the extra cell gives, the galvanic cells can be connected with the coil. (See directions). The Faradic Coil (Fig. 5262, No. 4) is securely fastened on a plate of polished hard rubber, which serves for a cover to the large cell and drip-cup, and to hold the elements. Soft rubber is cemented on the under side of this plate, which is securely clamped over the cell and drip-cup, when the lid of the Battery box is closed, by means of pressure on the spring fastened on the coil. Each Battery is furnished with a hard rubber Electrode box, which is placed in the cover of the Battery. This Combined Battery gives greater quantity and intensity than any ever offered to the profession. It weighs less, occupies less space, and is perfectly portable.

LEE'S IMPROVED GAIFFE POCKET BATTERY.

With either Closed or Open Cell.

Generating Four Currents

1st. Posts 2 and 3 the Primary.

2d. Posts 1 and 2 the Secondary.

3d. Posts 1 and 3 the Combined.

4th. Shocks or Shocking Current.



5264

Explanation of Electrodes and Accessories which go with this Battery.

- | | | |
|-------------------------------|---------------------------------|--------------------------------|
| A. Positive Pole. | G. Tinsel Brush Electrode. | M. Rheotome Regulator. |
| B. Negative Pole. | H. Olive Pointed Electrode. | N. Current Switch. |
| C. Springs to hold Cell. | I. Bottle Bisulphate Mercury. | O. Cord Tips. [Cords.] |
| D. Gaiffe Cell. | J. Universal Celluloid Handles. | P. & R. Doubly Insulated Silk |
| E. Nickered Cylinder Handles. | K. Current Regulator. | S. Insulators for Tips. |
| F. Sponge Electrode. | L. Rheotome. | T. Circular Exciter Electrode. |
| | U. Lee's Improved Closed Cell. | |

The Battery is sold with either the Gaiffe (open cell), or with the improved closed cell, whichever is wanted by the purchaser.

Price complete, with all Electrodes, \$10 00. Discount 25 per cent.

ELECTRIC BATTERIES AND APPARATUS.

Flemming's Batteries Discount 20 per cent.

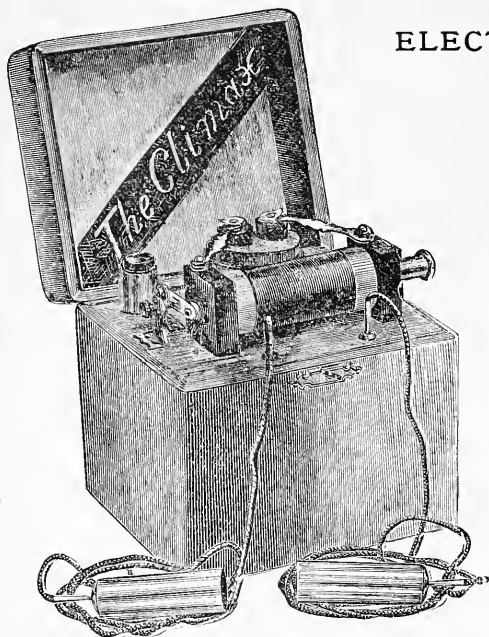
THE CLIMAX.

A Portable Faradic Battery.

Pat. July 4, 1871. Pat. Aug. 13, 1885.

This battery is encased in a neatly finished box, polished cover. Its construction is very simple, yet the manufacturer has retained many improvements that have heretofore been employed only on more expensive machines. One very essential feature of this battery is, that it can be carried about without spilling any of the fluid, the cell being closed by means of a soft rubber stopper of the best quality. Into this stopper are fitted acid proof stoppers, to which are attached the elements; these can easily be removed, as well as the soft rubber stopper, the latter being removed only when the jar is to be filled.

Price..... \$3 50 net.



5265

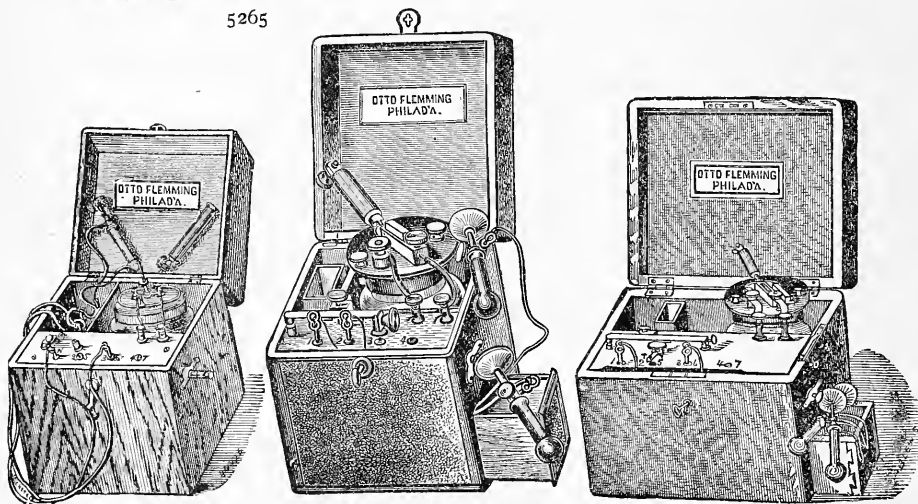


Fig. 5266. No. 0.

Fig. 5267. No. 1.

Fig. 5268. No. 2.

No. 0 FARADIC BATTERY.

Nickel plated, polished case with carrying handle, cotton covered cords, one regular sponge electrode, and one tubular tin handle.

Price..... \$12 00

No. 1 FARADIC BATTERY.

Very complete and highly finished; specially adapted for applications in muscular paralysis.

Price..... \$15 00

No. 2 FARADIC BATTERY.

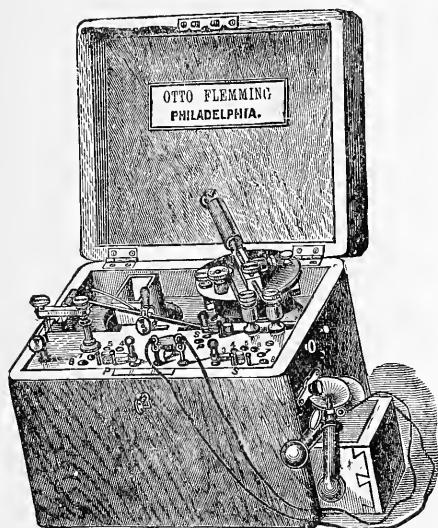
Finished as well as the No. 1 Battery, but coil one inch longer, and therefore more powerful, with the addition of a Commutator.

Price..... \$20 00

FLEMMING'S BATTERIES.—Discount 20 per cent

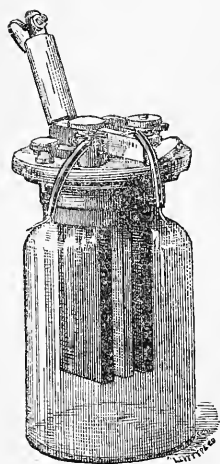
No. 3.—FARADIC BATTERY.

This Battery is the finest and most complete of its kind ever manufactured. It is provided with a slow and a rapid Rheotome, or current interrupter; a Commutator, or polarity changer; Scales, by which the primary and secondary currents may be graduated to the utmost delicacy or the greatest power; and with our new patent Galvanic Cell. This cell, which is charged with a solution of bi-chromate of potassium, is so made that when not in action, the zinc is taken out of it altogether, and placed in a vulcanite cell provided for the purpose. The aperture through which it passes is covered by a rubber hydrostat, making the cell perfectly fluid-tight, and saving both the fluid and the zinc from the effect of splashing in transportation, or of immersion in case of upsetting. By this plan also, the cell can be filled nearly to the top and the zinc be made twice the usual length; it will thus produce a stronger current, and last a longer time. This Battery is inclosed in a handsome walnut case, $7\frac{1}{4} \times 7\frac{1}{2} \times 8\frac{1}{2}$ inches, has all its metallic parts finely nickel plated, and weighs, when charged, only ten pounds.



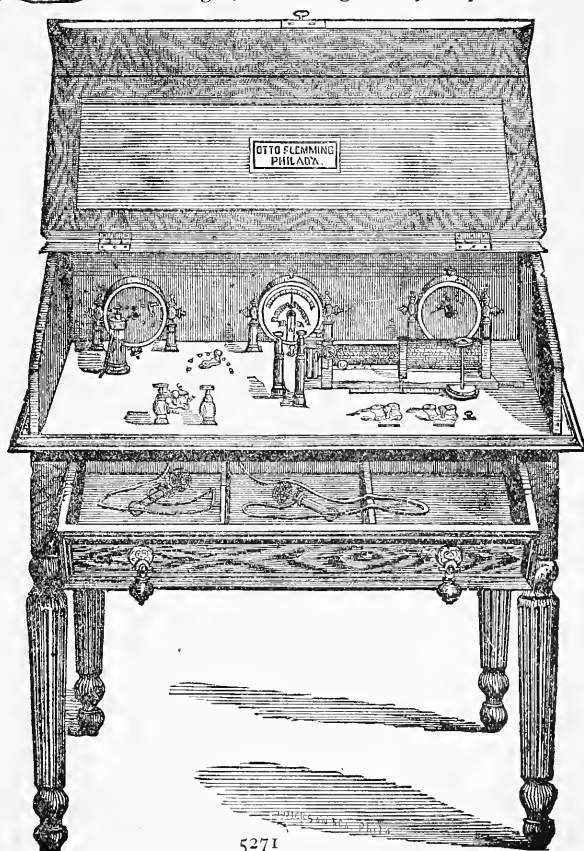
5269

Fig. 5269.—No. 3 Flemming's Faradic Battery, \$30 00



5270

Cell for Faradic Battery, \$3 00

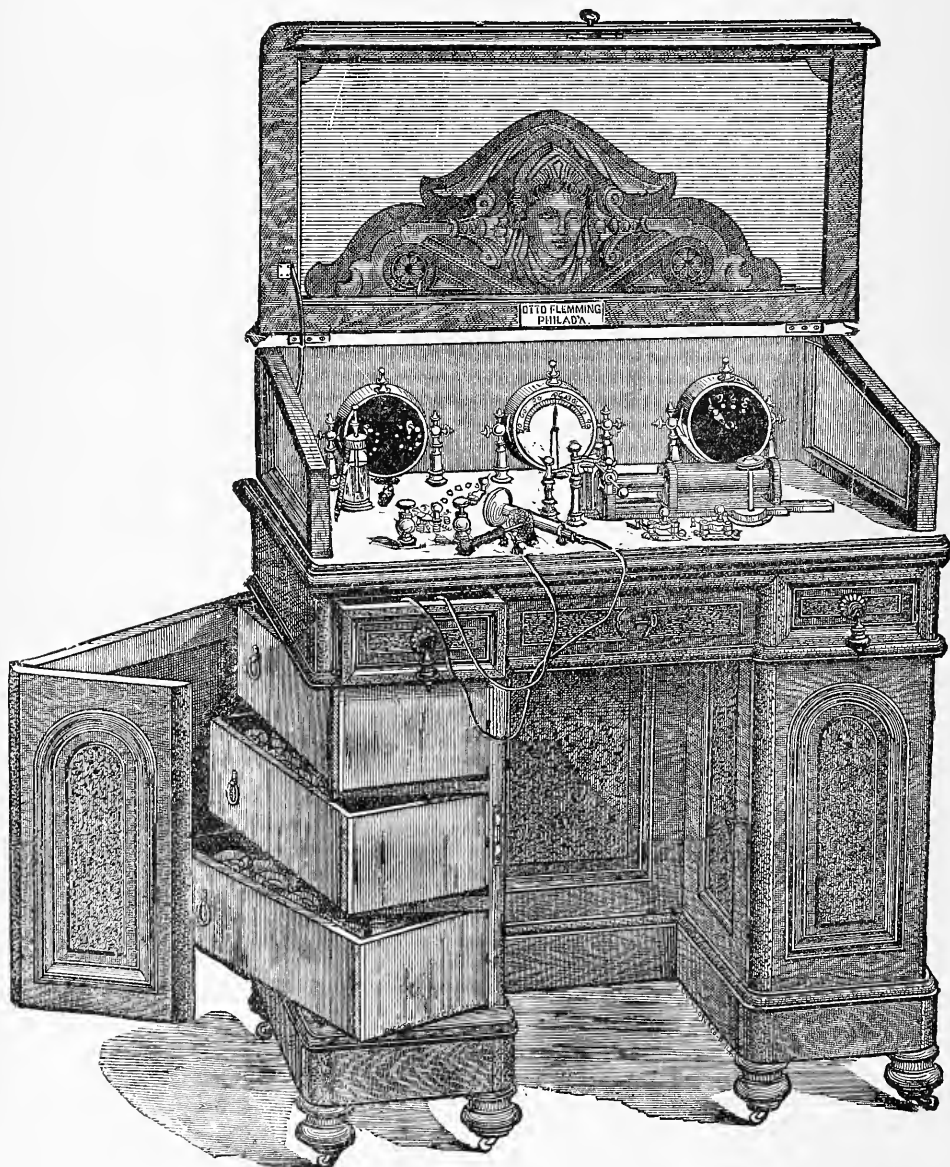


5271

Flemming's Table Battery, \$200 00 to \$250 00

ELECTRIC BATTERIES AND APPARATUS.

Flemming's Batteries Discount 20 per cent.



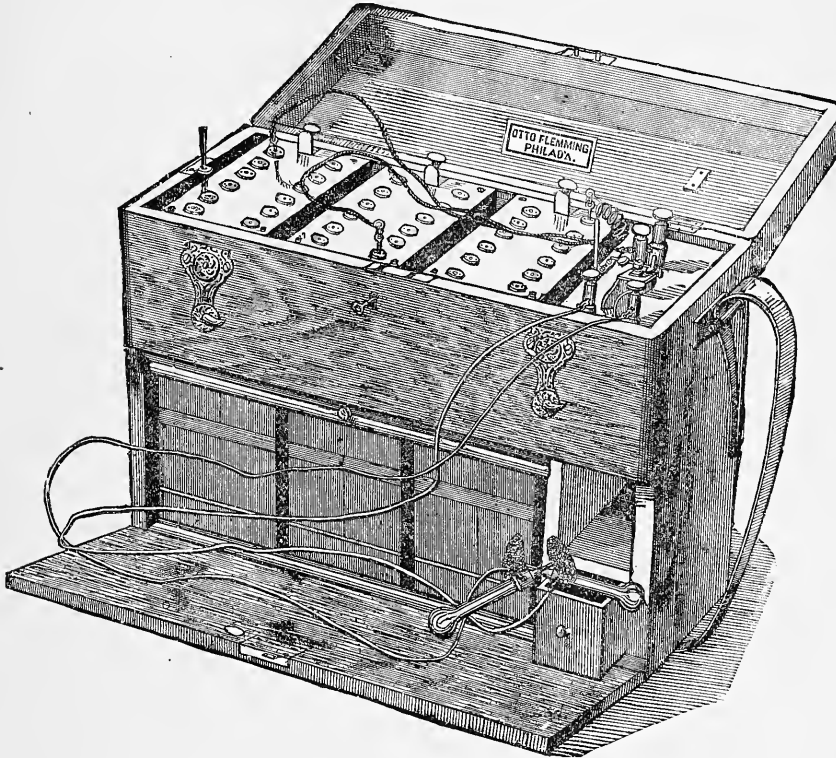
5272

Fig. 5272.—Flemming's Cabinet Battery..... \$300 00

ELECTRIC BATTERIES AND APPARATUS.

FLEMMING'S NEW IMPROVED PORTABLE CONSTANT GALVANIC
CURRENT BATTERY

Discount 20 per cent.



5273

Price, 10 Cell Battery.....	\$25 00	Price, 60 Cell Battery... ..	\$100 00
" 20 " "	45 00	Galvanoscope.....	5 00
" 30 " "	65 00	Automatic Rheotome.....	10 00
" 40 " "	80 00		



5274

Fig. 5274.—AUTOMATIC RHEOTOME.

For interrupting the constant current once, twice, four, and eight times a second. It can be attached to any form of Galvanic Battery.

Price..... \$12 00

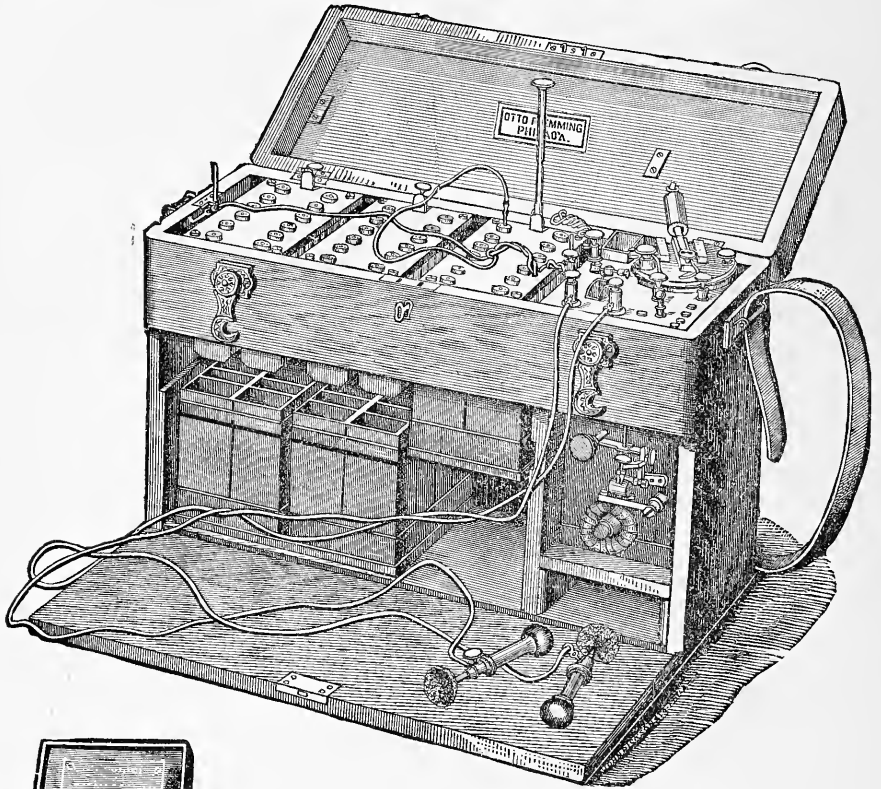
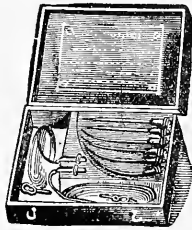
ELECTRIC BATTERIES AND APPARATUS.**FLEMMING'S BATTERIES—Discount 20 per cent.**

Fig. 5275.—Flemming's Constant Battery, \$90 00.

Fig. 5276.—ELECTROLYTIC NEEDLE.

Case containing six Electrolytic Needles, gilt points, straight and curved, with conducting cords. Price \$7 00. Single Needle \$1 25.



5276

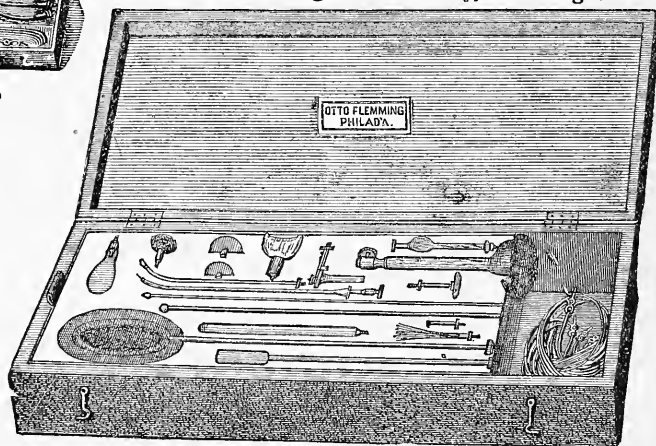
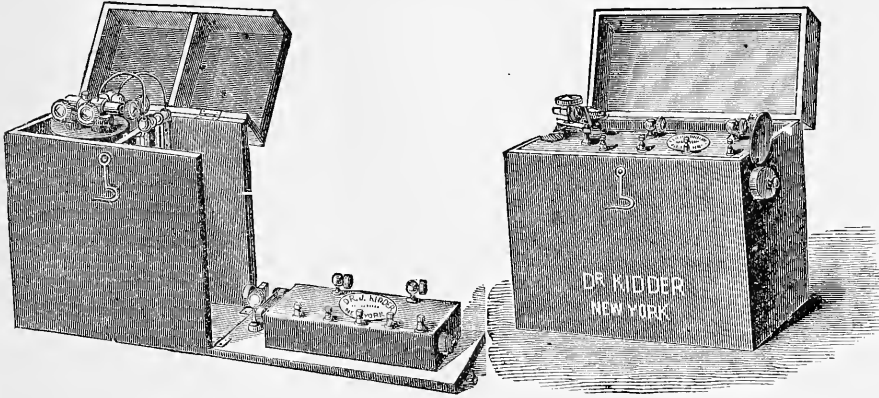


Fig. 5277.—Electrodes. Case containing 20 Electrodes and Conducting Cords. \$20 00

ELECTRIC BATTERIES AND APPARATUS.

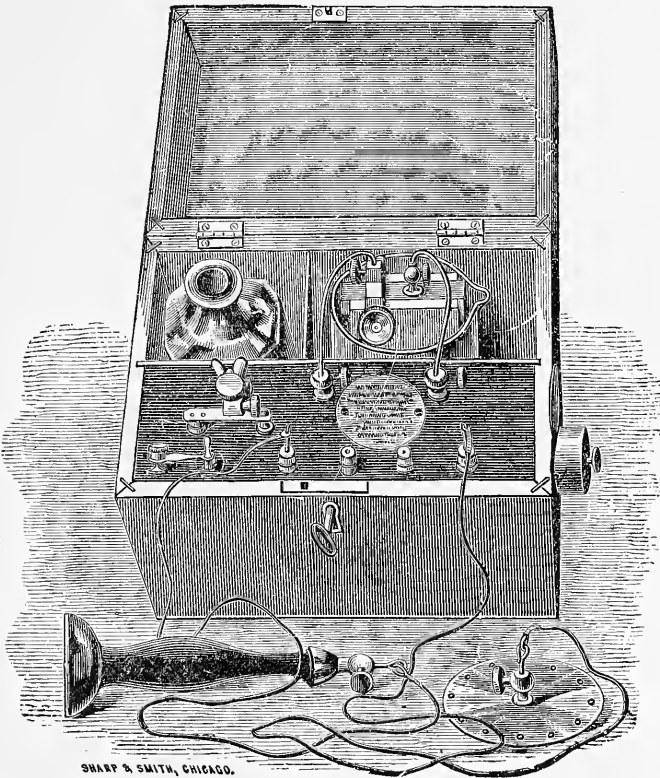
KIDDER'S BATTERIES—Discount 20 per cent.



5278

5279

FIG.									
*5278	Kidder's Physicians' Visiting Battery, No. 2.....	\$27 00.	Nickel-Plated.....	\$30 00					
*5279	“ “ “ “ “ 3.....	27 00.	“	30 00					



SHARP & SMITH, CHICAGO.

Fig. 5280.—Kidder's Office Battery\$20 00

ELECTRIC BATTERIES AND APPARATUS.

KIDDER'S BATTERIES—Discount 20 per cent.

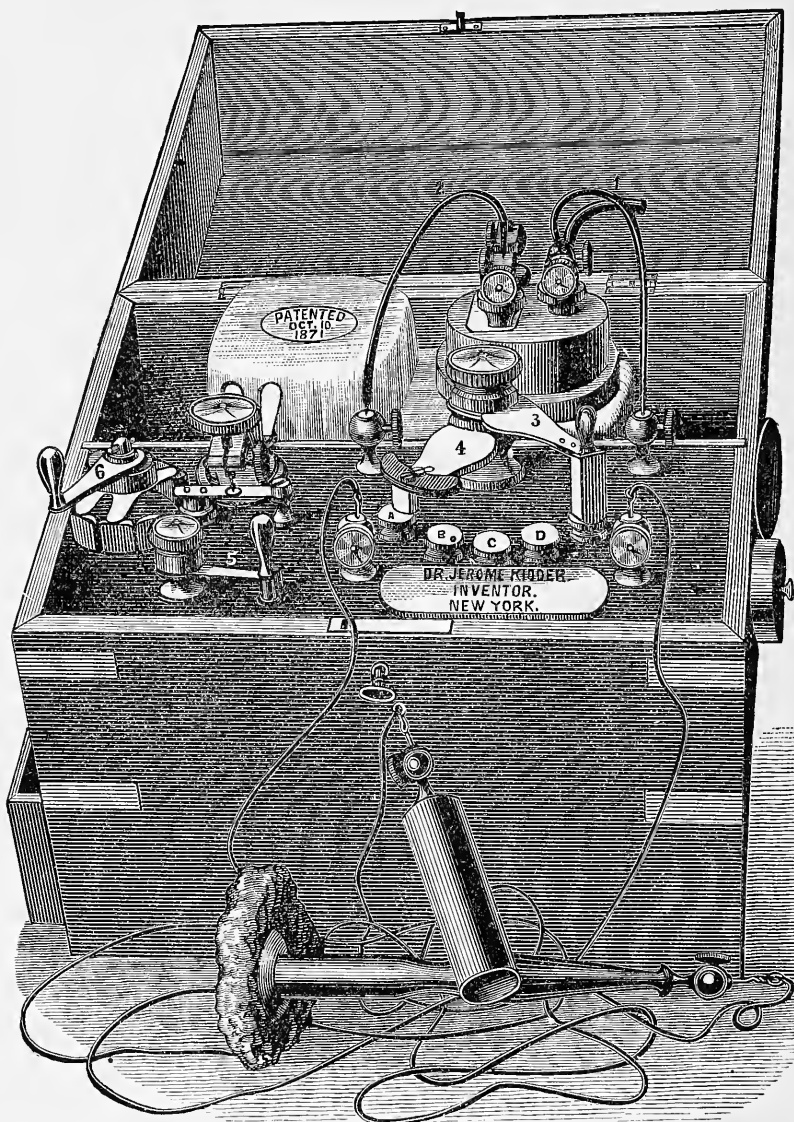


Fig. 5281.—Kidder's No. 1, Physicians' Office Apparatus, large size, \$50 00.

SHARP & SMITH,

Western Agents,

73 RANDOLPH STREET,

CHICAGO, ILL.

ELECTRIC BATTERIES AND APPARATUS.

KIDDER'S BATTERIES—Discount 20 per cent.

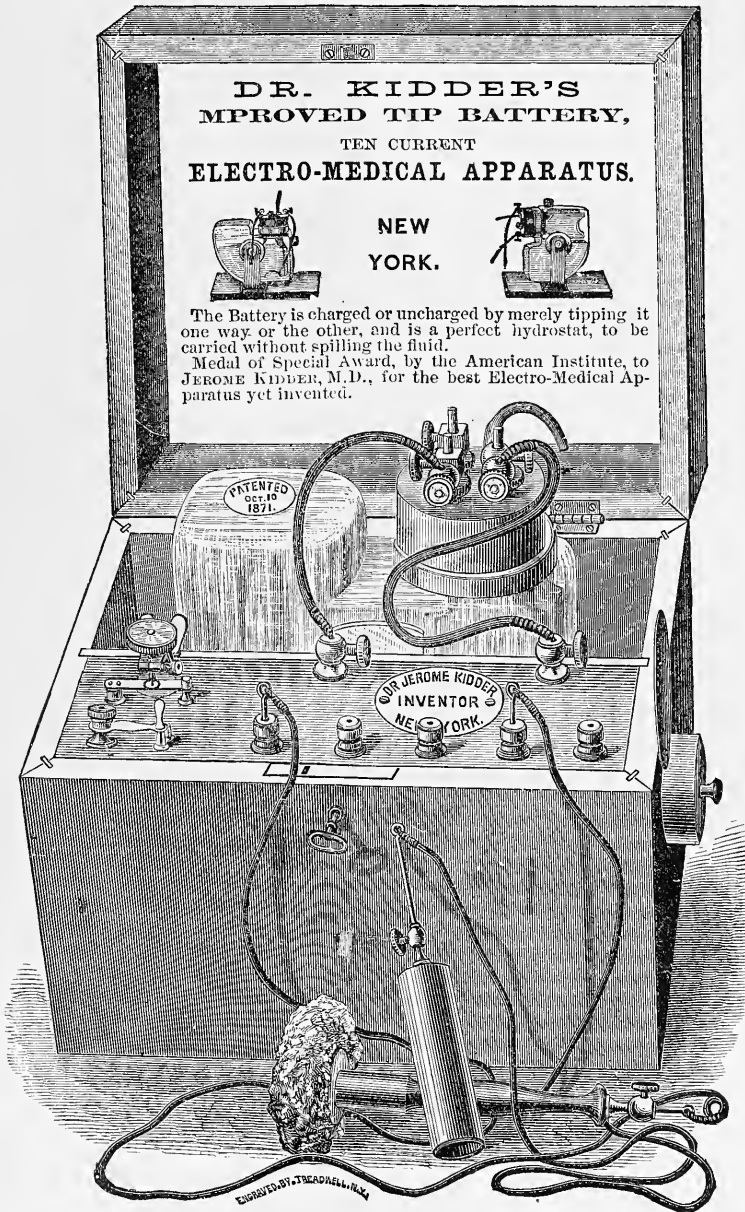


Fig. 5282.—Kidder's Improved Tip Battery.....\$27 00

SHARP & SMITH, Western Agents, 73 Randolph St., Chicago, Ill.

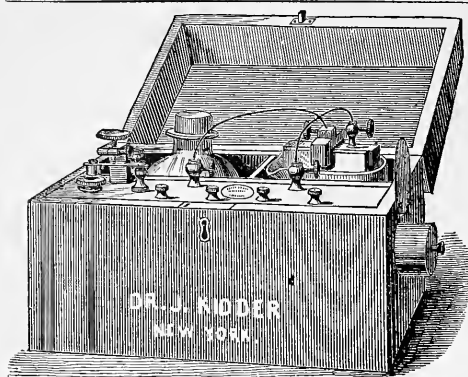


Fig. 5283.—Kidder's Family Six-Current Electro Medical Apparatus, in more compact form, for family use. Price, with Handles and Sponge Holder, \$14 40, net.

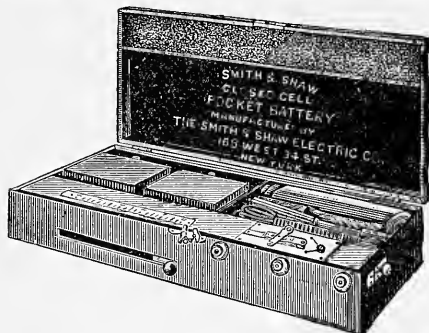
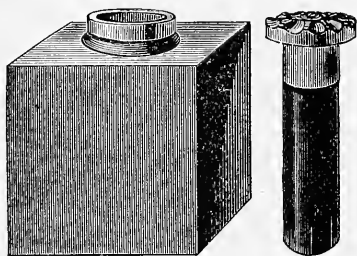


Fig. 5285.—Smith & Shaw Battery, 1 cell, \$7 50; 2 cells, \$10 00, net.



Acid-tight Cell, for Smith & Shaw Battery.

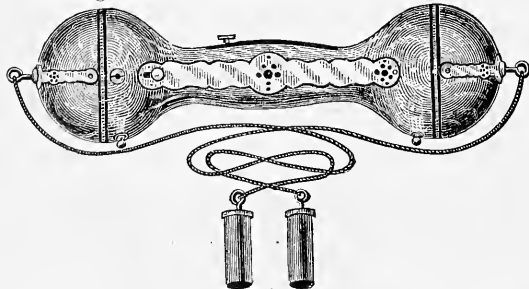
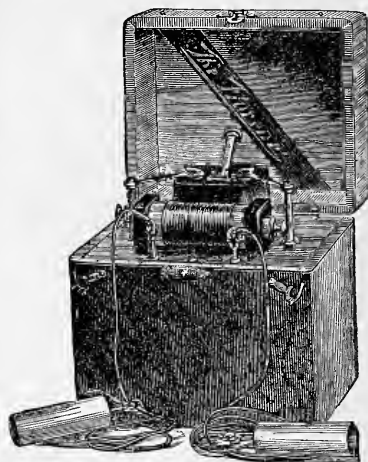


Fig. 5286.—Electric Dumb Bell, \$9 00, net, pair.—5286. In use.

ELECTRIC BATTERIES AND APPARATUS.

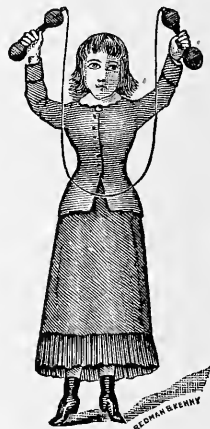


5284

Fig. 5284.—FLORENCE FARADIC BATTERY.

Hinged Rod, patented Feb. 1, 1870; Hydrostat, patented July 18, 1871; Perforated Spring Connection, patented Aug. 18, 1885.

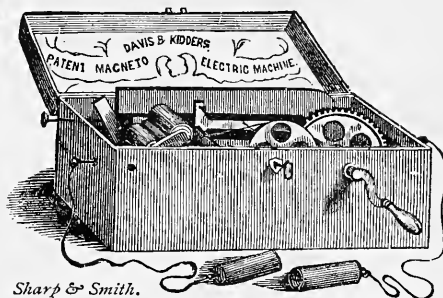
This battery is manufactured with the special view of producing a machine adapted to family use. It has been the object of the manufacturers to simplify as much as possible, retaining at the same time all the latest improvements which make our Electric Apparatus so famous. All metal parts nickel-plated, with "Drescher's" patent Hard Rubber Hydrostat, silk covered conducting cords, etc., it represents a battery of at least three times its cost. The object of the manufacturers has been to keep the price within such limits that the machine is within the reach of all. \$6 00, net.



ELECTRIC BATTERIES AND APPARATUS.



Fig. 5287.—Sharp & Smith Pocket Battery, \$6 00, net.



Sharp & Smith.

Fig. 5288.—Davis & Kidder's Crank Battery, \$8 00, net.

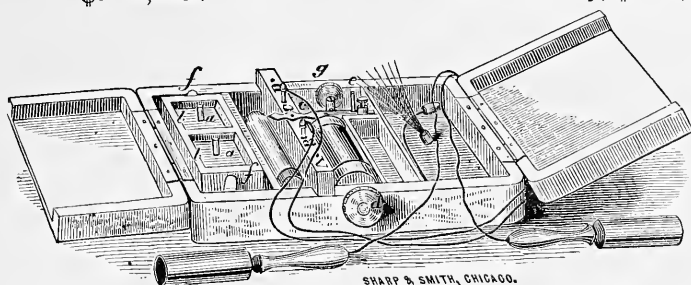


Fig. 5289.—Gaiffe's Battery, \$7 50, net.

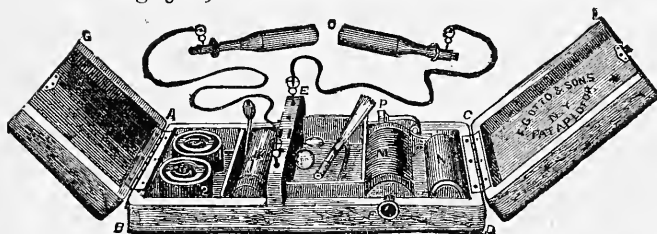


Fig. 5290.—Drescher's Pocket Battery, No. 3, \$9 00, net.

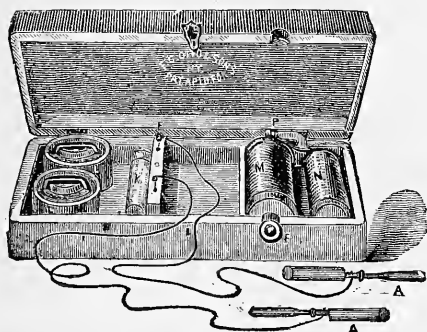


Fig. 5291.—Drescher's Pocket Battery, No. 2, \$7 50, net.

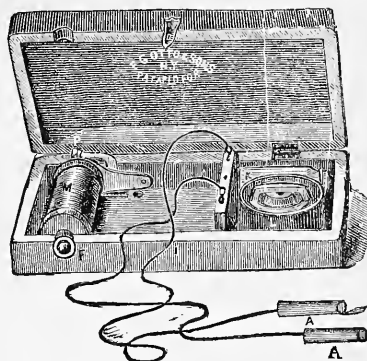


Fig. 5292.—Drescher's Pocket Battery, No. 1, \$5 00, net.

McINTOSH'S BATTERY ELECTRODES.

Discount 20 per cent.

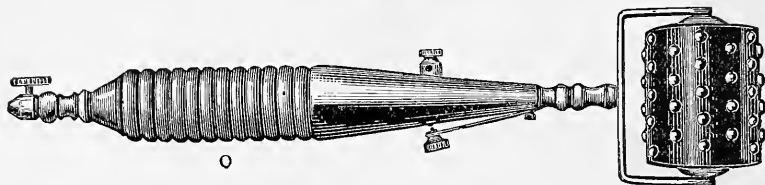


Fig. 5300—Wheel Electrode of Hard Rubber, set with metallic points for muscular Faradization; universal hard rubber handle, with current interrupter.... \$ 5 00
Handle, without wheel..... 3 00

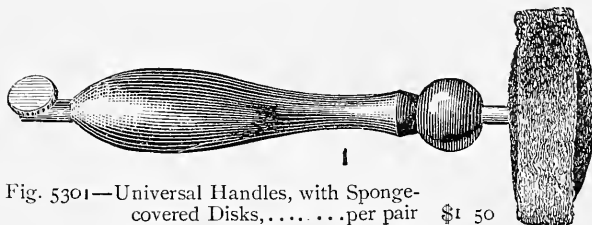


Fig. 5301—Universal Handles, with Sponge-covered Disks,.....per pair \$1 50

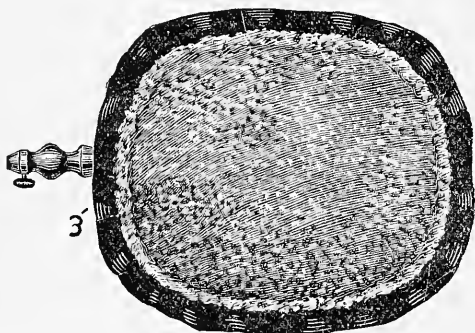


Fig. 5302—Sponge-covered Foot Plate, Insulated on one side with Soft Rubber, to prevent wetting carpet..... \$5 00

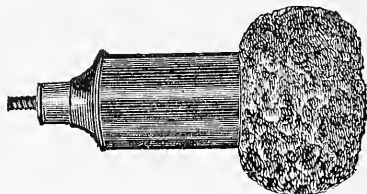


Fig. 5303—Sponge Cup, with Universal handle, \$1 00
without..... 50

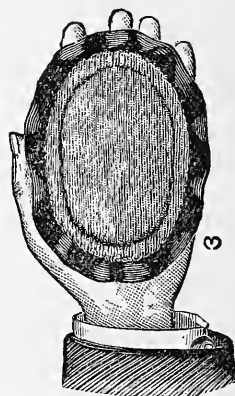


Fig. 5302A—Sponge-covered Electrode, Insulated with Soft Rubber, for general application with hand, \$1 50.



Fig. 5304—Holder for large Sponge, with Universal Handle, \$1 50; without, \$1 00.

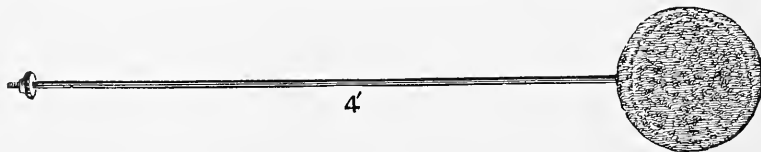


Fig. 5305—Sponge-covered Electrode, with long handle, to be used under the clothing, \$1 50

McINTOSH BATTERY ELECTRODES.

Discount 20 per cent.

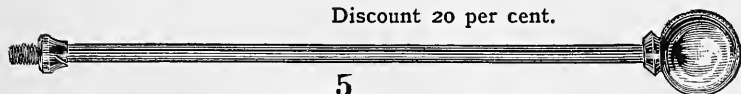


Fig. 5306.—Ball Rectal Electrode, Insulated, \$1 25

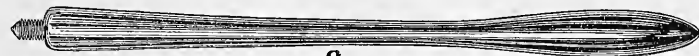


Fig. 5307.—Rectal Electrode, Nickel Plated, \$1 25



Fig. 5308.—Rectal Electrode, Insulated with Polished Hard Rubber, \$2 00



Fig. 5309.—Rectal Electrode, large, Nickel Plated, \$1 40

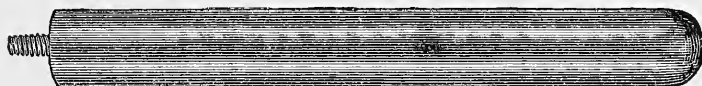


Fig. 5310.—Vaginal Electrode, Nickel Plated, \$1 50



Fig. 5311.—Vaginal Electrode, Insulated with Polished Hard Rubber, \$2 50

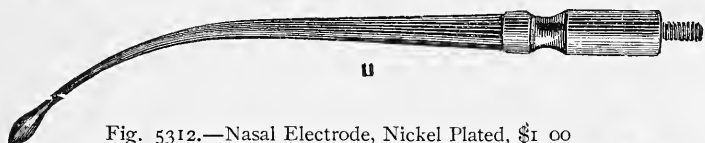


Fig. 5312.—Nasal Electrode, Nickel Plated, \$1 00



Fig. 5313.—Small Aural and Nasal Electrode, 75c.

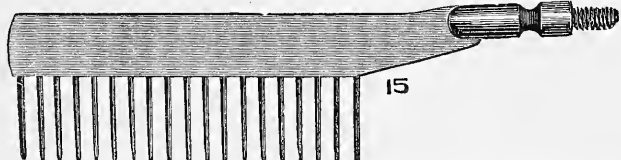
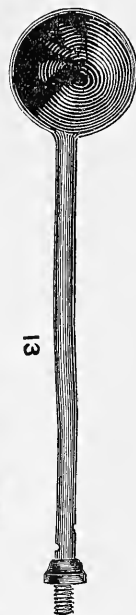
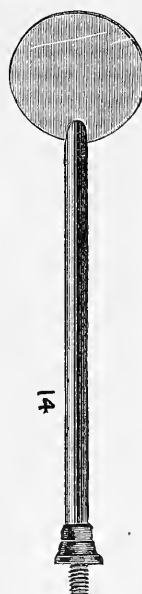


Fig. 5316.—Comb Electrode, Nickel Plated, \$1 50



Fig. 5318.—Metallic Brush, \$1 00

Fig. 5314
Tonsil Elec-
trode, Nickel
Plated, \$1 00Fig. 5315
Tongue Plate
Electrode, In-
sulated, \$1 00

McINTOSH BATTERY ELECTRODES.

Discount 20 per cent.

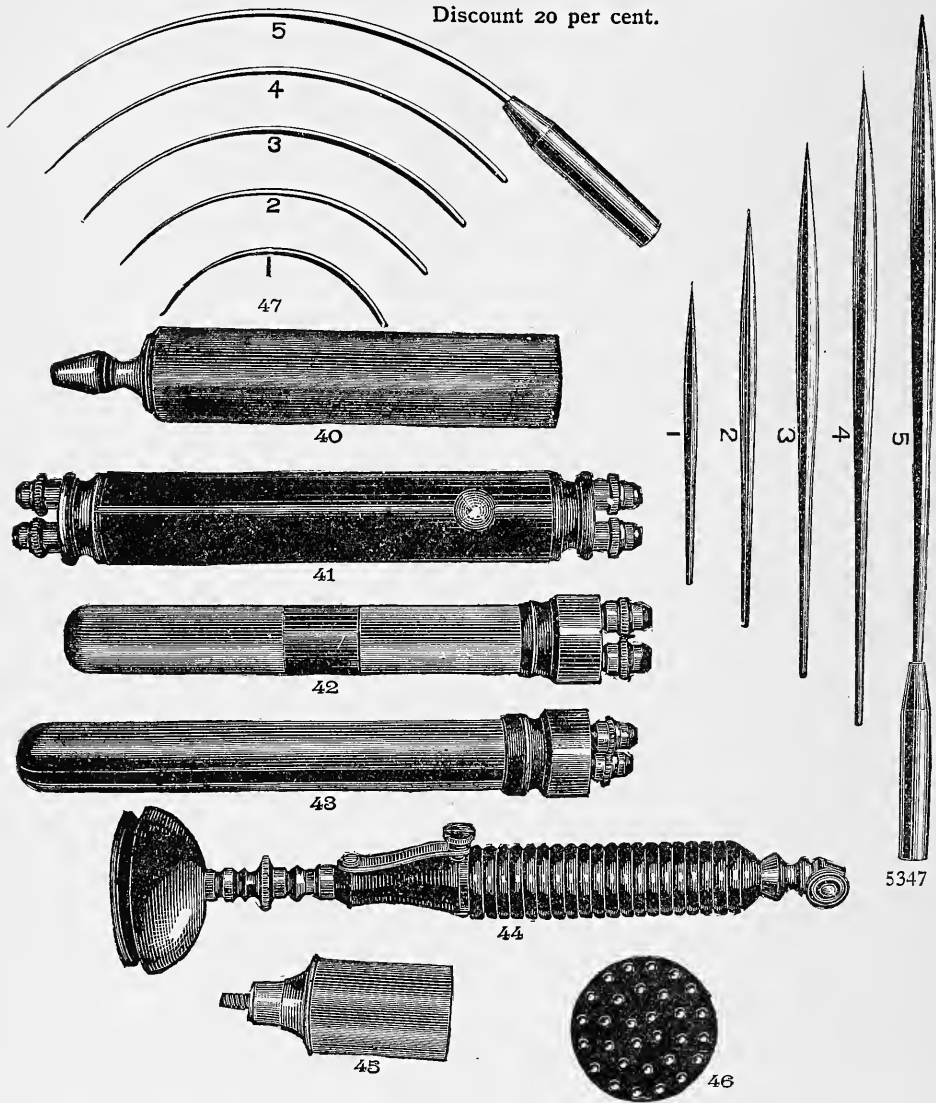


FIG.

*5330 (cuts 29 and 30)	Neck and Arm Electrode.....	\$ 2 00
*5331 (cut 31)	Ear Electrode.....	2 75
*5332 (cut 32)	Ball Electrode.....	75
*5333 (cut 33)	Disk Electrodes, three sizes..... each,	50
*5334 (cut 34)	Eye Cup Electrode, new style.....	2 00
*5335 (cut 35)	Hair Brush Electrode.....	2 50
*5336 (cut 36)	Metallic Scourge, Nickel Plated.....	75
*5337 (cut 37)	Small Eye Electrode.....	75
*5338 (cut 38)	Metallic Points for Faradization.....	1 00
*5339 (cut 39)	Dental Electrode.....	1 00

McINTOSH'S BATTERY ELECTRODES.

Discount 20 per cent.



- FIG.
- | | | | | |
|-------|----------|--|----------------|------|
| *5340 | (cut 40) | Metallic Handles..... | per pair, \$ | 1 50 |
| *5341 | (cut 41) | Pole Changer, Handle of Hard Rubber..... | | 5 00 |
| *5342 | (cut 42) | Vaginal Electrode, for both currents, Insulated in the center, Nickel Plated..... | | 4 00 |
| *5343 | (cut 43) | Vaginal Electrode, for both currents, Insulated in halves..... | | 4 00 |
| *5344 | (cut 44) | Sponge Holder and Current Breaker, Handle Hard Rubber..... | | 4 00 |
| | | without Handle..... | | 1 00 |
| *5345 | (cut 45) | Sponge Cup, Nickel Plated..... | each, | 50 |
| *5346 | (cut 46) | Disk Electrode, with Insulated Points..... | | 1 00 |
| *5347 | (cut 47) | Needles for Electrolysis. Straight, half-curved, full-curved, flattened needles (shown in cut full size). Extra heavy triple Gold Plated (Insulated), Price of Nos. 1, 2, 3, 4, 5, each, \$1 00. Platinum Needles, each..... | from \$2 00 to | 4 00 |

McINTOSH BATTERY ELECTRODES.

Discount 20 per cent.

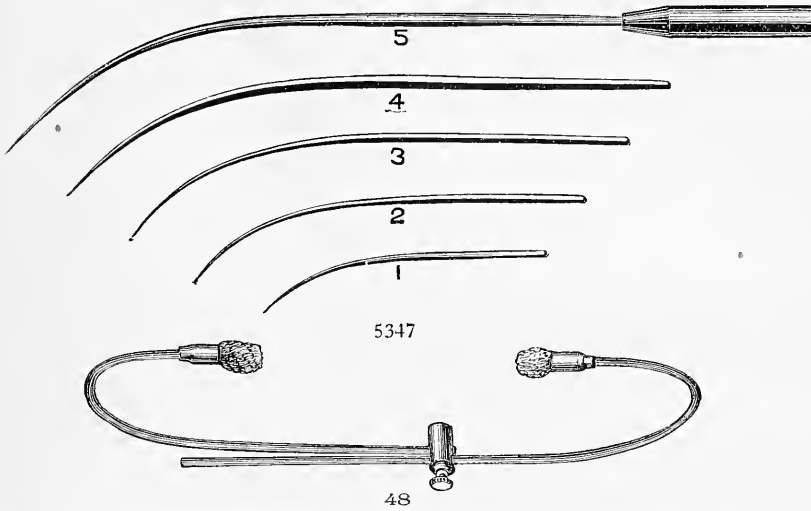


Fig. 5348 (cut 48)—Double Ear Electrode, Insulated \$2 00

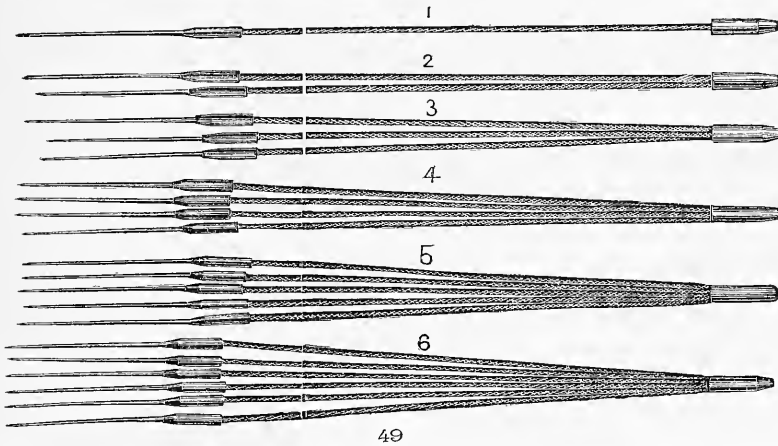


Fig. 5349 (cut 49)—Needle Holders, with Cord and Tips to hold 1, 2, 3, 4, 5 or 6 Needles of any size. Price without Needles, 60c., \$1.00, \$1.25, \$1.50, \$1.75 and \$2.00

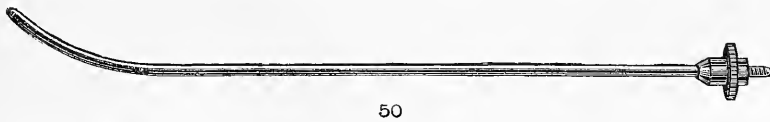


Fig. 5350—Metallic Sound Nickel Plated..... 75c.

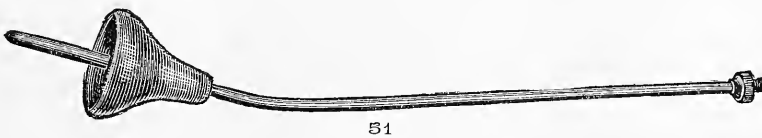
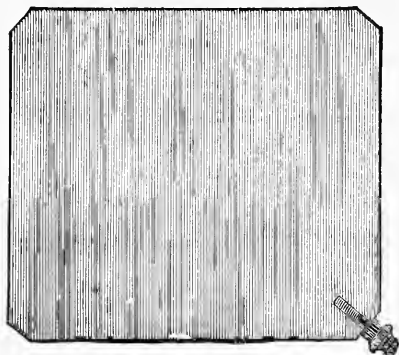


Fig. 5351 (cut 51)—Uterine Electrode, with Cup and Stem, Insulated..... \$2 50

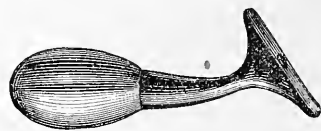
McINTOSH'S and FLEMMING'S BATTERY ELECTRODES.



52

Fig. 5352 (Cut 52).—Metallic Foot Plate.

Price.....\$1 00
(Discount—20 per cent.)



53

Fig. 5353 (Cut 53).—New Style of Rectal Electrode, Insulated.

Price.....\$2 50
(Discount—20 per cent.)

FLEMMING'S ELECTRODES.—Discount 20 per cent.

Physicians selecting and ordering Electrodes from our list can have them fitted in velvet-lined morocco cases, at a cost of from \$2.00 to \$5.00 each.

We can furnish Electrodes in cases to order, from \$15.00 to \$50.00, and we also keep the following described cases in stock.

The selections are made so as to give as complete a set for the price as possible.

Fig. 5354.—Electrode Case, No. 1—Containing:

- 1 Wheel Electrode with Universal Handle of Polished Rubber, Wheel of the same material, set with Metallic Points, for Muscular Faradization.
- 1 Holder for large Sponge, Nickel-Plated.
- 1 Rectal Electrode, Insulated with Polished Hard Rubber.
- 1 Vaginal Electrode. 1 Tongue Electrode.
- 1 Cup-Shaped Uterine Electrode. 1 Metallic Brush.
- 1 Uterine or Urethral Electrode, Insulated with Polished Hard Rubber.
- 1 Spiral Flexible Uterine or Urethral Electrode, Insulated.
- 1 Laryngeal Electrode, with Sponge Tip, insulated with Polished Hard Rubber.
- 1 Ear Electrode, Insulated with polished Hard Rubber.
- 1 Eye Cup Electrode, new style. 1 Hair Brush Electrode.
- 1 Needle Holder for Electrolysis, with two needles.

Price.....\$30 00

Fig. 5355.—Case No. 2—Containing:














- 1 Universal Sponge Holder, Nickel-Plated.
- 1 Rectal Electrode, Nickel-Plated. 1 Vaginal Electrode, Nickel-Plated.
- 1 Nasal Electrode, Insulated with polished Hard Rubber.
- 1 Cup Shaped Uterine Electrode, Insulated with polished Hard Rubber.
- 1 Spiral Flexible Uterine or Urethral Electrode, Insulated.
- 2 Duchenne's Points, Nickel-Plated.
- 1 Ball Electrode, Nickel-plated.
- 1 Metallic Brush. 1 Disk Electrode.
- 1 Needle Holder for Electrolysis, with one Needle.

Price.....\$15 00

KIDDER'S EXTRA APPLIANCES FOR ELECTROTHERAPEUTIC USES

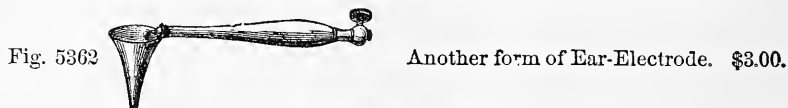
The following are a part, comprehending the more useful Electrodes manufactured by Dr. KIDDER, New York:—

SPONGE-HOLDING ELECTRODES.

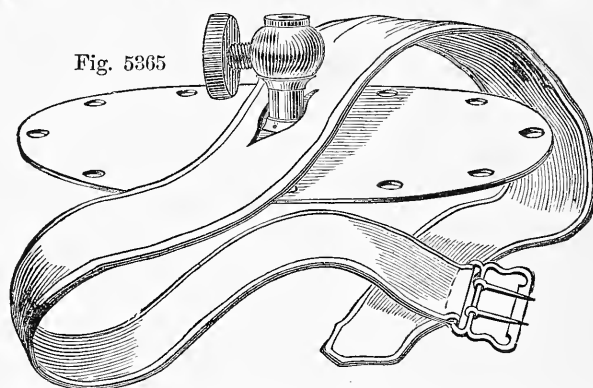
- Fig. 5356  Sponge Holder. \$1.25
- Fig. 5357  Small Sponge-holder, rosewood handle, with sponge-clasp. \$1.50.
- Fig. 5356  Side-sponge to use under a loose gown. \$1.75.
- Fig. 5357  Long Side Sponge-holder (length 14 inches), without Sponge. \$2.00.
- Fig. 5358  Side Sponge-holder, with handle 14 inches long, shown with sponge attached.
- Fig. 5359  Sponge-holder, with Interrupter. \$3.00.
- Fig. 5360 The same. Small size. \$2.00.
- Sponge Clasps to attach to Sponge-holder. The last four to be used only with Handles No. 2 and 6.
- | | | | |
|---|-------------------------------|---|-----------------------------|
|  | A
2½ and 3 inch,
\$1.00 |  | D
½ inch,
50c. |
|  | B
1½ and 2 inch,
75c. |  | E
Small pointed,
50c. |
|  | C
1 inch,
60c. |  | F
Small conical,
50c. |
- Fig. 5361  Ear-Electrode to clasp small sponge. Now made with holes at point to serve on small sponge. \$1.50.

THE ABOVE PRICES ARE NET.

KIDDER'S EXTRA ELECTRIC APPLIANCES.



ADJUSTABLE ELECTRODE TO BE USED WITH SPONGE UNDERNEATH, WHICH MAY BE SEWED TO THE PLATE.



Silver plated Universal Adjustable Electrode Plate, round $4\frac{1}{2}$ ins. diameter.	\$1.25
" " Oblong, $1\frac{3}{8} \times 2\frac{1}{4}$	75
" " " $1\frac{1}{2} \times 4\frac{1}{2}$	75
" " " $2\frac{1}{2} \times 3\frac{1}{4}$	75
Strap for Adjustable Electrode, 19 inches long.....	35
" 29 inches long.....	40
" 37 " ".....	45
" 47 " ".....	50
Hinged Copper Foot-Plate.....	1.25
Case of instruments, comprising Nos. 1, 7, 9, 11, 14, 15, 16 and 18, with Universal Handle, in neat velvet-lined case.....	15.00

ELECTRODES USED WITHOUT SPONGE.

Metallic Brush for Anæsthesia. \$1.50.



The same, shown with brush pushed within its cylinder for protection when not in use.



Scourge, with fine tinsel brush for Anæsthesia. \$1.50.



Insulated Throat Electrode. \$1.50.



Silver-plated Tongue Electrode. \$1.50.

THE ABOVE PRICES ARE NET.

KIDDER'S ELECTRIC APPLIANCES.

Fig. 5371  Silver-plated Rectal Electrode. \$1.50.

Fig. 5372  Uterine Electrode. \$1.50.

Fig. 5373 Bell-shaped Uterine Electrode. \$2.00.

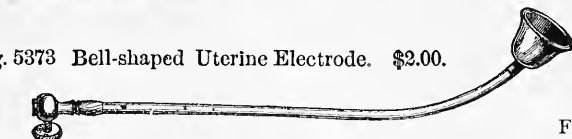
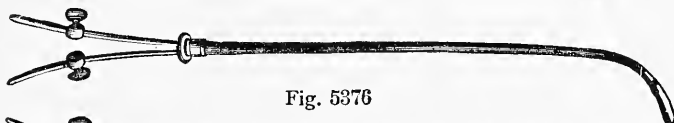
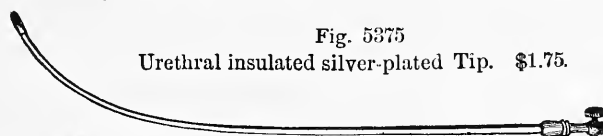


Fig. 686a.
Silver Plated
Vaginal Elec-
trode. \$1.75.

Fig. 5374  Silver-plated Urethral Electrode, not insulated. \$1.50.

Fig. 5375
Urethral insulated silver-plated Tip. \$1.75.



Duchenne's Double Vesical Electrode for paralysis of the bladder, and incontinence of urine. Open and closed to apply one or both poles. \$2.50.

NEEDLES FOR ELECTROLYSIS TO DISCUSS TUMORS, ETC.

Fig. 5377



PRICE OF

Steel Needle, gold-plated, not insulated, 2 inches long.....	\$1.00
Platina " not insulated, 2½ inches long.....	1.50
Steel " insulated and gold-plated, 1½ inch long.....	1.50
" " " " 1½ " "	1.50
" " " long point, 2½ inches long	1.50
" " " " 3½ " "	1.75
Platina Pointed Needle, insulated, 2½ " "	1.75
" " " " 3½ " "	2.00
" " " long point, 6 inches long.....	2.50

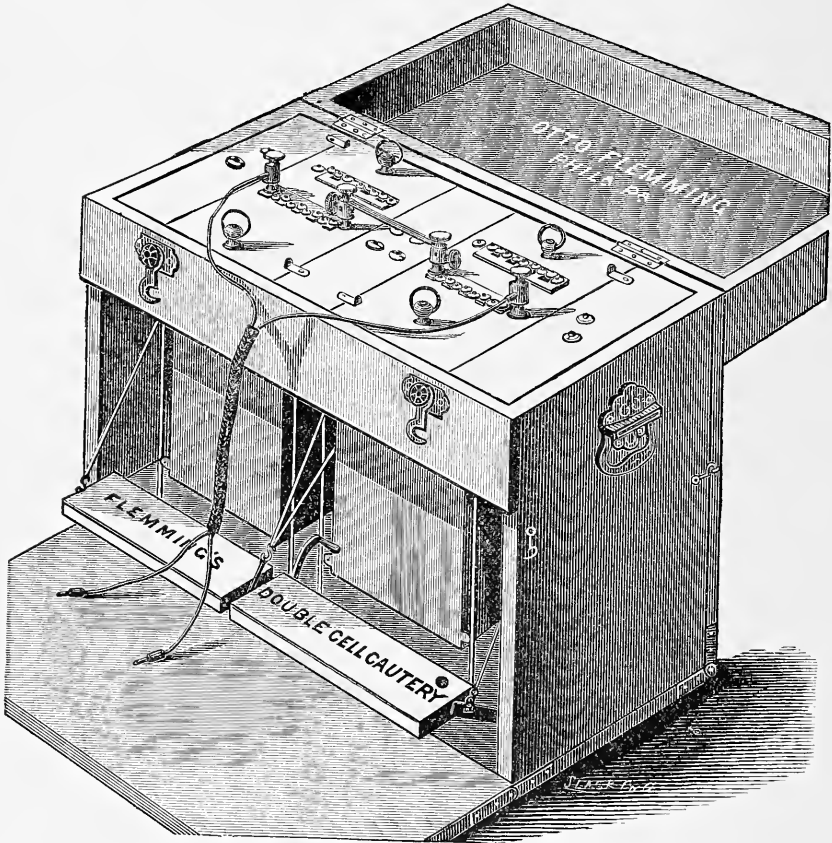
These needles have a rounded head to be inserted by the thumb, and an eye to receive small metallic cord which accompanies each one, to be secured in a screw cup attached to a large metallic cord.

Price of the large metallic cord, 6 feet long..... \$1.00
" same, covered with pure rubber..... 2.50

THE ABOVE PRICES ARE NET.

GALVANO CAUTERY BATTERIES.

FLEMMING'S—Discount 20 per cent.



5380

DOUBLE CELL CAUTERY BATTERY.

FOR OFFICE USE.

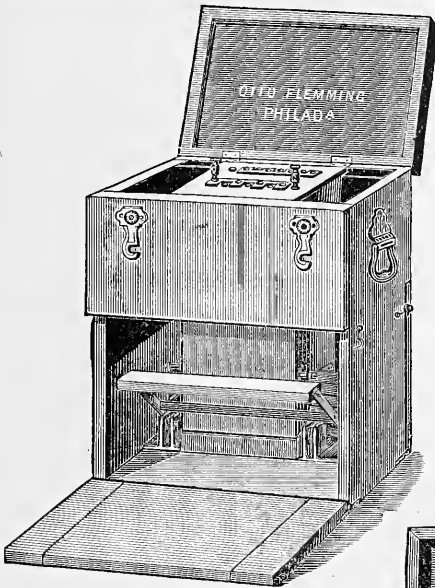
Consisting of two systems of 10 pairs zinc carbon plates each, with treadle, two rubber cells and conducting cords.

Fig. 5380. Price..... \$50 00

The same, provided with two Commutators for converting the Cautery into a 20 cell continuous Galvanic Current Battery.

Fig. 5381. Price..... \$95 00

GALVANO-CAUTERY BATTERIES AND ELECTRODES.



5382

FLEMMING'S—Discount 20 per cent.

Fig. 5382.—SINGLE CELL CAUTERY BATTERY.

For office use, consisting of one system of 10 pairs zinc-carbon plates, and a treadle arrangement, by means of which the rubber cell (containing 3 quarts of bi-chromate solution), is raised or lowered.

Price of Single Cell Cautery Battery, including Conducting Cords..... \$30 00

The same, provided with a Commutator for converting the Cautery into a 10 Cell Continuous Galvanic Current Battery..... 50 00



5383

Fig. 5383.—CAUTERY INSTRUMENTS FOR NASO-PHARYNGEAL OPERATIONS.

Price, Complete in Morocco Case.....\$25 00

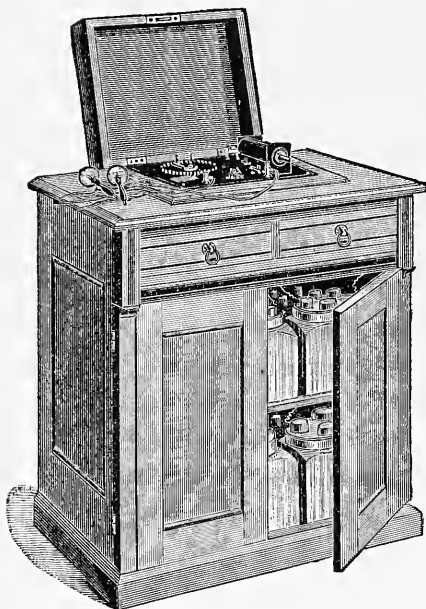
CONSISTING OF

The Universal Hard Rubber Handle with Circuit Closer, to which any of the instruments below may be attached.....	5 00
The short, straight Electrode or Knife, for use in the anterior part of nares.....	2 00
The Post-Nasal Electrode, for introduction behind the soft palate.....	2 00
The long Knife Electrodes for introduction through the nares to posterior ends of turbinated bones and pharynx.....	2 00
The Spiral or Moxa Electrode.....	2 00
The Sharp pointed Electrode.....	2 00
Dr. J. Solis-Cohen's Pharyngeal Electrode, to protect the vault of the pharynx.....	3 50
One set of 3 Rubber Nasal Specula.....	1 50
Universal Rubber Handle, with platinum wire loop and windlass (Ecraseur).....	10 00

ELECTRIC BATTERIES AND APPARATUS.

McINTOSH—Discount 20 per cent.

Fig. 5384—No. 2.—OFFICE CABINET BATTERY.



5384

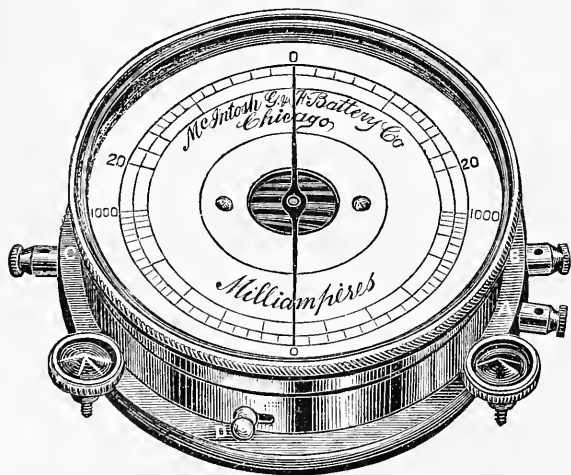
Price complete, with 30 Diamond Carbon Cells.....\$100 00

In this Battery we use the celebrated Diamond Carbon Cell, the fluid of which is a solution of muriate of ammonia; the elements are zinc and carbon rods. The cell is perfectly sealed, so that evaporation is impossible, a feature that in itself highly recommends any cell for office purposes. The cell has the following advantages :

1. Perfect cleanliness.
2. High electromotive force — 175 volts.
3. Sealed internal resistance.
4. Great power of recuperation.
5. It is a cell that will run for medical purposes many months without the slightest attention.

The switch board has first-class Faradic coil, 25 button double galvanic switch and pole changer.

It is now conceded that the Milliampere-Meter is one of the most important



5385

Price.....\$25 00

factor in the treatment of disease by electricity, as with it the exact amount of "dosage" of the current that passes through the patient is determined. This instrument is absolutely correct, as it is graduated by standard measurements, and the greatest care is taken in the manufacture. There are two separate scales: the upper one is graduated from $\frac{1}{2}$ to 20, and the lower one from 1 to 1,000 milliamperes, so any range of current can be obtained.

GALVANO-CAUTERY BATTERIES AND ELECTRODES.

McINTOSH—Discount 20 per cent.

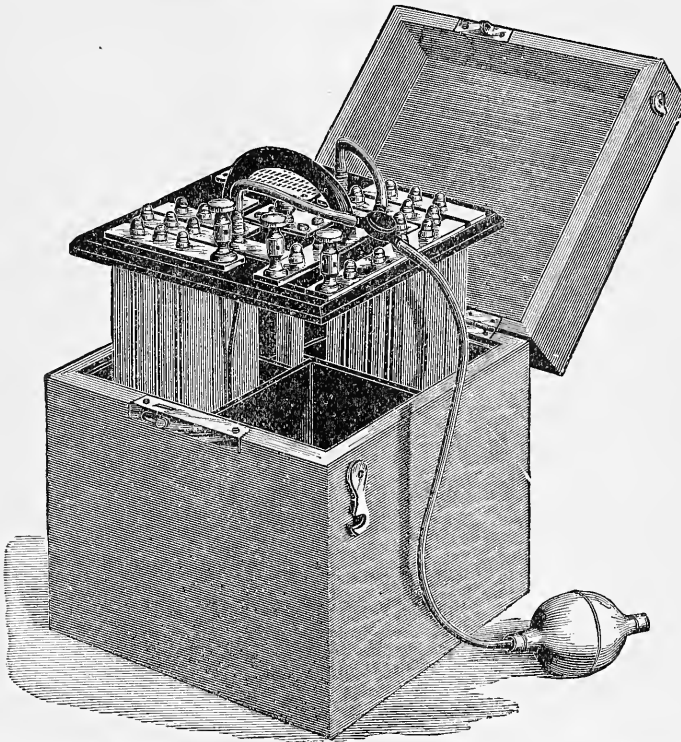
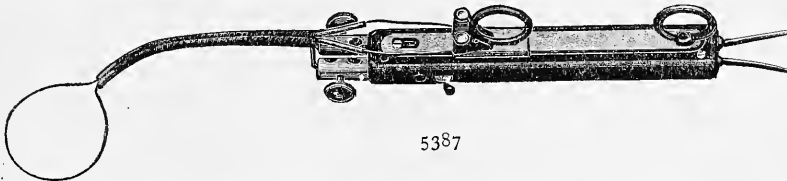


Fig. 5886—McIntosh Portable Cautery Battery.....\$75 00

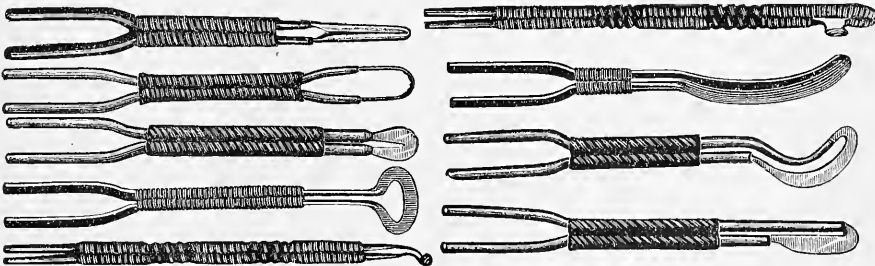


5387

GALVANO-CAUTERY HANDLE WITH ECRASEUR ATTACHMENT.

This represents the Galvano-Cautery Handle arranged for the loop or ecraseur.

Price complete.....\$10 00



Figs. 5388 to 5399—McIntosh's Electrodes..... each \$2 00

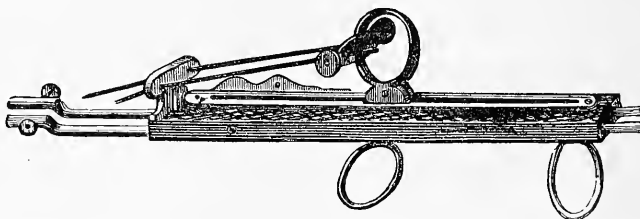
KIDDER'S GALVANO CAUTERY ELECTRODES.

Fig. 5400—Handle for Platinum Knife, Loop and Coil Burners, with Knob and Spring for closing and interrupting the circuit.

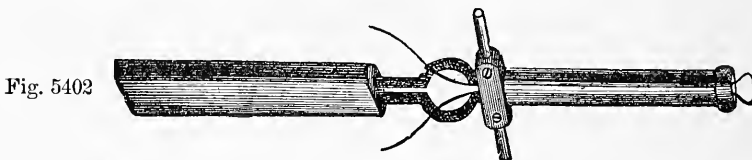


Burners and Cutting Loops for Galvano-Cautery. \$4.00.

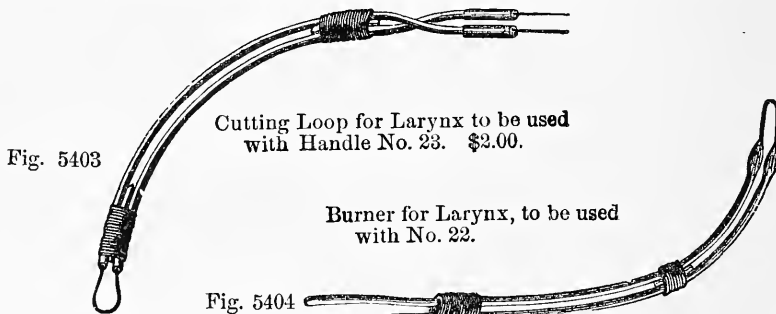
Fig. 5401—Handle for Cutting Loop where only one hand is at liberty; the other hand may be employed in holding some instrument, as the laryngeal or aural mirror.



Vulcanized Rubber Handle, with Slide, for drawing incandescent Platina Loop for excising Tumors without bleeding. \$7.00.



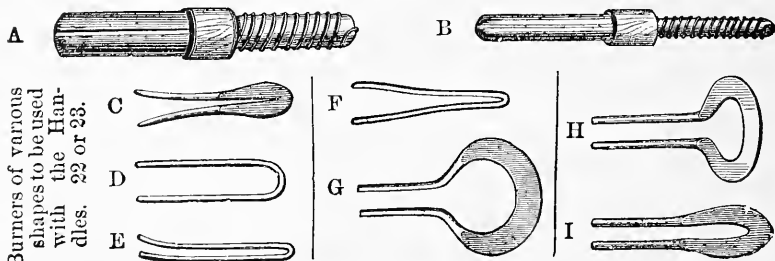
Another form of Handle with Platina Cutting Loop. \$4.00.



Cutting Loop for Larynx to be used with Handle No. 23. \$2.00.

Burner for Larynx, to be used with No. 22.

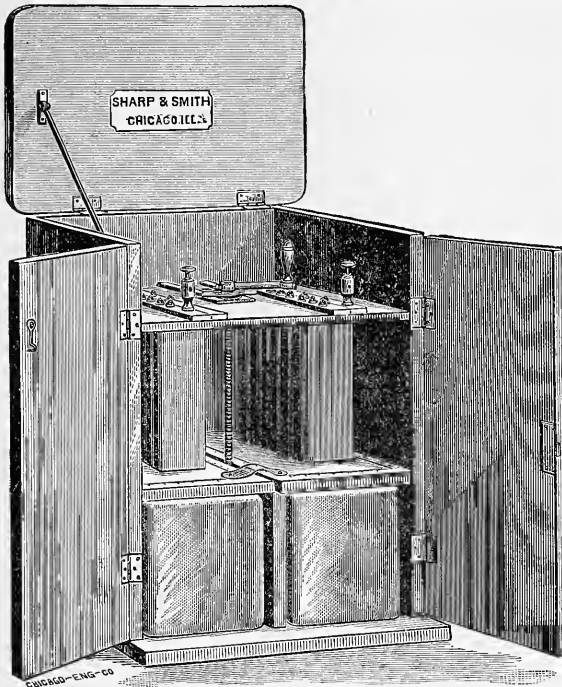
Fig. 5405.—Handles to each.



Burners of various shapes to be used with the Handles, 22 or 23.

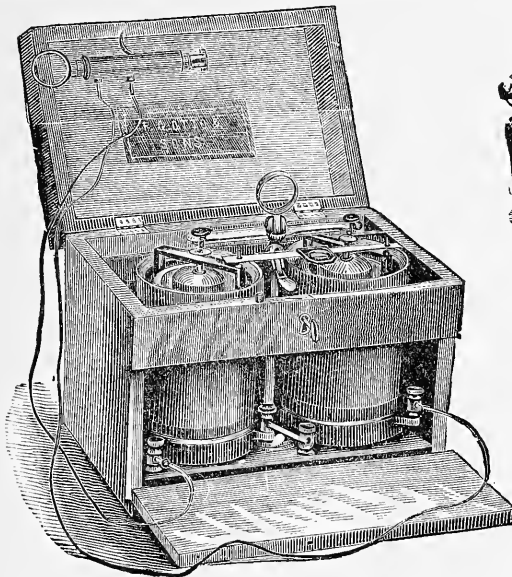
THE ABOVE PRICES ARE NET.

GALVANO CAUTERY BATTERIES, Etc.



5406

Fig. 5406.—Ingals' Cautery Battery.....Net, \$50 00



5407

Fig. 5407.—Drescher's Cautery Battery.....Net, \$20 00

This Battery, Fig. 5406, has been before the profession now for several years, and the recent improvements have made it the best and strongest Cautery Battery in the market. There are two large cells, and the elements consist of large zinc and carbon plates, which are depressed by a screw to any desired depth, regulating the strength of the current perfectly. The cells hold a large amount of fluid which requires less frequent changing. The Battery needs very little care. Some of them have been in constant use a number of years. The Battery is inclosed in a neat Black Walnut case, 12X15X22 inches high.

For Electrodes for "Ingals'" Cautery Battery, see page 445.



5408

Fig. 5408.—Beach's Electric Sponge Belt.

PATIENTS' PRICES.

No. 1.....	\$ 3 00
No. 2.....	5 00
No. 3.....	8 00
No. 4, Head Band.....	5 00
No. 5, with Suspensory,	10 00

BARRETT'S DRY CELL BATTERIES.

NOTE.—In ordering any of the batteries listed below it might be noted that the Nos. 1 and 2 are intended for general medical use, and are capable of treating every case, no matter what its nature—from those requiring the mildest to the strongest galvanic current; the No. 2, of course, having the additional advantage of the induction coil. The No. 3 batteries, however, containing a small number of cells, are adapted to treatment of cases needing a mild current, and to the electrolyses of small growths. They have full power for the work for which they are intended, but of course will not embrace so wide a field as the others. The Two-Cell Faradic No. 5 needs only a passing notice, as its power is equal to any case, and will create the most delicate as well as a most intense current.

Each and every metal part of the following apparatus and electrodes is most carefully polished and nickel-plated, and each will be found even in the smallest detail, made and finished in the very best manner, and second to none in respect to every quality that goes to make up a first-class instrument.

No. 1.—GALVANIC BATTERY.

This is a constant-current Battery, designed especially for physicians' use. It is put up in a very handsome, light, hardwood box, 6 x 7 x 10 inches. Metal parts are all finely finished and nickel-plated, and each is provided with a hard rubber switch-board for making and breaking the current and changing the poles; a water rheostat, one plain and one interrupting handle, conducting cords and best quality sponge electrodes.

FIG.			Price, \$		Net.
5409	24-Cell	.....	38	00	"
5410	32 "	.....	45	00	"
*5411	50 "	.....	65	00	"
5412	60 "	.....	75	00	"
5413	84 "	.....	95	00	"

Batteries of same style, with fewer or more cells, made to order at short notice.

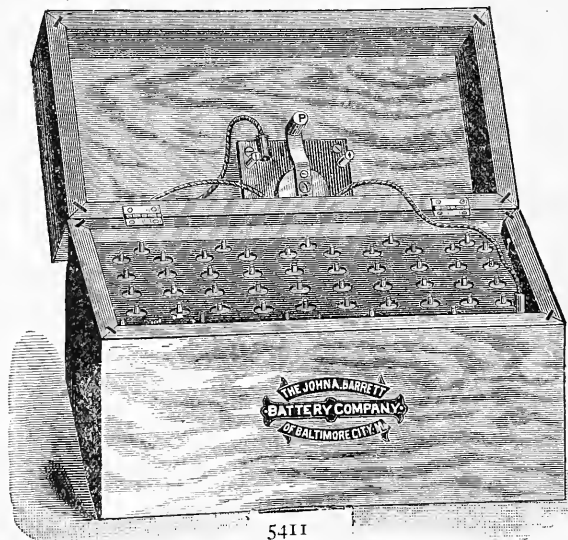


Fig. 5411.—50-Cell (No. 1) Galvanic Battery.—Case open, ready for work.

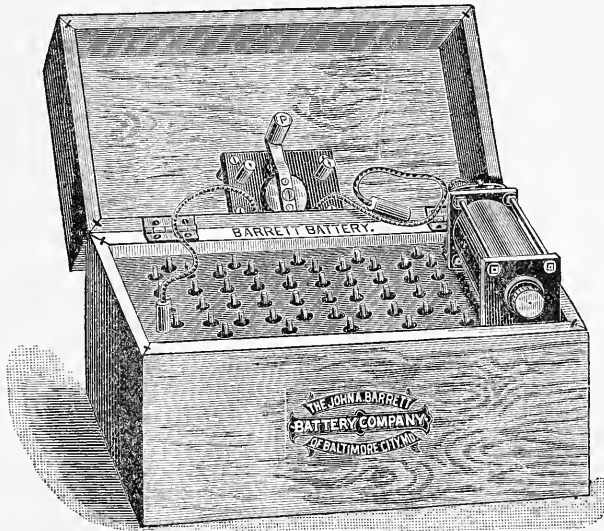
The capacity of these Batteries is 720 hours of actual work. The cost of operating the 50-Cell is 2½ cents per hour. The others proportionately more or less, according to number of cells.

Charge for Renewing and Restoring, per cell, 30 cents.

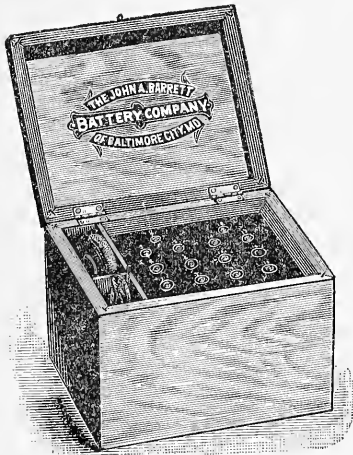
BARRETT'S DRY CELL BATTERIES.**Fig. 5416.—No. 2.—COMBINATION BATTERY.**

This Combination Battery, so far as the galvanic part is concerned, is precisely the same in every particular as the No. 1 preceding, but it contains in same box a Compact Faradic Coil and Cell, capable of producing the most delicate as well as the most intense and powerful induction current.

FIG.			
5414	24	Cell.....	\$58 00 Net.
5415	32	"	65 00 "
*5416	50	"	85 00 "

**Fig. 5416.—No. 2.**

The galvanic part of these Combination Batteries will work 720 hours continuously. The Faradic Cells have a capacity of 100 hours.

**Fig. 5418.—No. 3.****Fig. 5418.—No. 3.—GALVANIC BATTERY.**

This is a smaller and less complete constant-current Battery than the No. 1, and is intended for family as well as physicians' use, for electrolysis of small growths, hairs, etc.; in general, for the treatment of cases which do not need, or could not stand, a very powerful current. Put up in strong, well-finished walnut boxes, with conducting cords and sponge electrodes.

FIG.			
5417	6	Cell—size $4\frac{1}{2} \times 4\frac{1}{2} \times 5$..	\$10 00 Net.
*5418	12	" — " $5\frac{1}{2} \times 5\frac{1}{2} \times 5$..	15 00 "
5419	16	" — " $5\frac{1}{2} \times 5\frac{1}{2} \times 5$..	20 00 "

BARRETT'S DRY CELL BATTERIES.



Fig. 5420.—No. 7.—POCKET FARADIC BATTERY.

This instrument is designed for the use of families as well as physicians, and is extremely handy, compact, durable and simple, in its mechanism. It is put up in a handsome hardwood box— $8\frac{1}{2}$ inches long by $4\frac{1}{2}$ inches wide, and two inches deep—and furnished with a pair of conducting cords, one pair ebonite handles, and one pair hollow metal electrodes. The induction coil, giving three currents,—primary, secondary and combined,—is of superior make and finish, and has no equal anywhere in the uniformity and smoothness of its current.

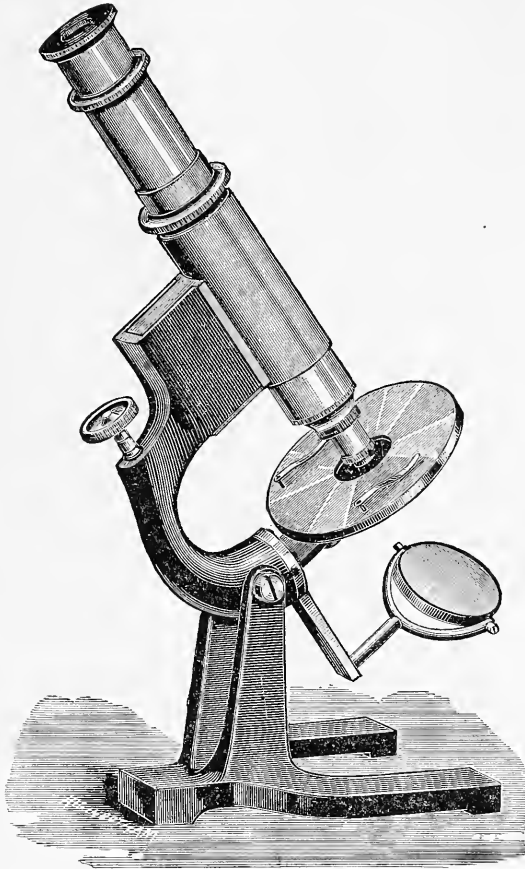
The cells of this Battery will work 100 hours continuously, and cost $1\frac{1}{2}$ cents per hour to operate. Each cell is secured in position on floor of its box by a vertical pin passing through it, and held there by the large set screw shown in cut.

Price of Battery complete.....\$10 00 Net.

Charge for renewing and restoring cell-block..... 1 50 “

In this Battery we have met the want which every physician recognizes—an instrument of the type commonly known as the Pocket Battery—of beautiful finish, and low price, with every quality satisfactory to the user, and with all the trouble and nastiness of the wet cell entirely banished. This Battery is a genuine triumph in this direction, combining perfection in every detail, together with a permanently closed Dry Cell, which, in the use of the Battery, does not have to be touched or treated in any way. To set the Battery in operation, open the cover and turn the switch; closing the cover breaks the circuit. We are sure these points will appeal to the experience of every one who has used, or desires to use, a Pocket Battery.

MICROSCOPES.



(Cut one-third of actual size.)

Fig. 5450.—No. 505-A.—BAUSCH & LOMB'S STUDENT MICROSCOPE.

This Microscope is the result of an effort to reach the utmost efficiency and simplicity at an exceedingly low price. Everything pertaining to it is well made and finished, and we feel sure will fill a popular demand.

In order to make up a complete low-priced outfit, we have given special attention to the optical parts, and as a result have devised two "Special" objectives, 1 inch 15° and $\frac{1}{4}$ inch 65° , which, although low priced, may be relied upon as giving as good results as can be obtained with such angular aperture. They are perfectly achromatic, with penetration and good resolving power, the $\frac{1}{4}$ showing the lines on *P. Angulatum*, while it has very long working distance. Where price, however, is not the principal consideration, we would invariably recommend the selection of our higher grade objectives.

The stage has spring clips; on its lower surface is attached a revolving diaphragm, and it is also provided with a screw, to which a sub-stage may be attached. The mirror is concave and is attached to a bar, the axis of which lies in the plane of the stage, so that illumination may be brought on the object from any point below or above the stage. The mirror-bar is also provided with sliding adjustment for mirror, so that proper illumination of the object may be obtained.

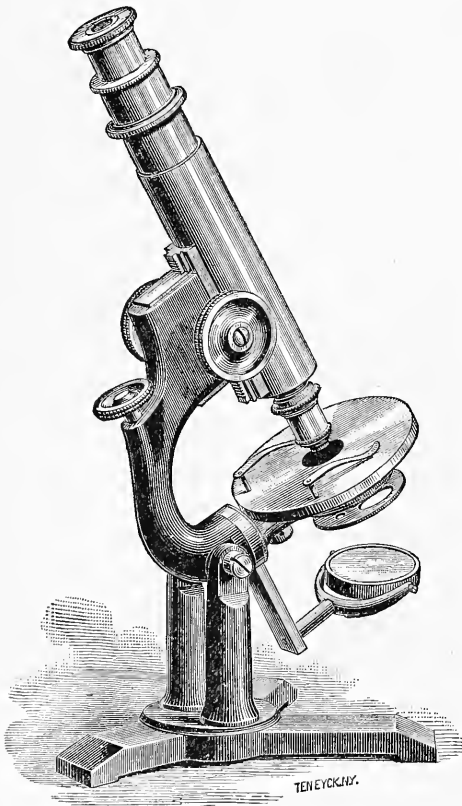
In No. 505-A the coarse adjustment is by sliding tube in cloth-lined sleeve. No. 505-B has a well made and delicate rack and pinion for coarse adjustment. The fine adjustment in both instruments is by delicate micrometer screw acting on our patent fine adjustment. The main tube has cloth lining, and is provided with draw tube, by which means standard optical tube-length may be used.

See following page for prices of above.

MICROSCOPES.

FIG.		NET.
*5451	No. 505 A, Stand with one eye-piece, in cherry case.....	\$16 00
*5451	No. 505 B, Stand as above with rack and pinion for coarse adjustment.....	23 00
*5451	No. 506 A, No. 505 A with 1 inch and $\frac{1}{4}$ inch "Special" objectives; magnifying power 80 to 375 diameters.....	30 00
*5451	No. 506 B, No. 505 B with 1 inch and $\frac{1}{4}$ inch "Special" objectives, magnifying power, 80 to 375 diameters.....	37 00
*5451	No. 507 A, with No. 505 A with 1 inch (No. 604) and $\frac{1}{4}$ inch (No. 608 or 609) magnifying power, 80 to 375 diameters	38 00
*5451	No. 507 B, No. 505 B with 1 inch (No. 604) and $\frac{1}{4}$ inch (No. 608 or 609) magnifying power, 80 to 375 diameters.....	43 00
5452	Sub-stage ring, to receive any sub-stage accessories, extra.....	1 00
5453	Sub-stage with revolving diaphragm, extra.....	2 00
5454	Glass stage and slide carrier, extra.....	5 00

No. 5455.—MODEL MICROSCOPE.



(Cut one-third actual size).

Fig. 5455—No. 520.—Bausch & Lomb's Model Microscope.

We have constructed this microscope in compliance with a generally expressed demand for a simple, low-priced and well-made instrument, which is adapted to every grade of work, and claim that in it we have a model which possesses, in an eminent degree, these qualities. It is of chaste design, its parts are all calculated to bear the strain of every day work, and on this account, and because of its simplicity, it may be used by inexperienced hands without detriment or injury to it.

This microscope especially recommends itself by requiring a smaller pecuniary outlay than any of similar construction, and may be supplied with valuable additions, such as our revolving and glass stages, mirror bar with adjustable mirror and sub-stage, all of which greatly increase the efficiency, and add but little to the price of the instrument.

The tripod base, pillars and arm, are neatly japanned; the axis is arranged with strong bearings to allow inclination of the body to any angle. Coarse adjustment is by perfect rack and pinion, provided with tightening screws; fine adjustment by a delicate micrometer screw, acting on our patent movement.

MICROSCOPES.

The stage is of brass, circular in form, very thin to allow great obliquity, but of sufficient strength to be firm under manipulation, with detachable spring clips. Attached to its lower side is a sub-stage ring and revolving diaphragm, both of which may be removed.

The main tube has a draw tube, which is provided with the society screw to receive low power objectives, amplifier or analyzer of polariscope. Plane and concave mirrors are adjustable on the mirror bar, which is a feature possessed by few low-priced instruments, although it is of considerable importance, from the fact that a change in the distance of the light requires a corresponding adjustment of the mirrors. The mirror bar swings on a large bearing (the axis of which lies in the plane of the stage) to any obliquity below and above the stage, the latter for the illumination of opaque objects.

Fig. 5455, No. 520. Stand, with any of our Huyghenian eye-pieces, in upright polished case, with handle and lock, drawer for accessories, and receptacles for eye-pieces and objectives	\$25 00 net.
Fig. 5455, No. 521. The above with two objectives, 1 inch, (No. 604), and $\frac{1}{4}$ inch (No. 608 or 609), and camera lucida, pliers, slides and covers.....	45 00
Revolving stage, with removable spring clips, extra.....	5 00. "
Improved glass stage with slide carrier, which slips over either plain or revolving stages, extra.....	5 00 "
Graduated mirror bar, with mirror and sub-stage (both adjustable) same as that used on Investigator, in place of that accompanying stand, extra.....	5 00 "

Fig. 5456—No. 530.—PHYSICIANS' MICROSCOPE.

This instrument has enjoyed a popularity since its first introduction. It has from time to time been improved, and within a year has been entirely remodeled, although its original features are all retained. Under all these improvements it has remained at the same price, and even now, although considerably more valuable than formerly, we have decided to make no change. We believe that we are therefore in a position to claim that no instrument of equal efficiency is offered for the price. It is firm, compact, and will give the various adjustments, and will permit the use of such accessories as modern examinations require.

The base is japanned and of neat design. Pillar and arm of bronze, connected by a well fitting joint, for inclination of the body to any angle. Coarse adjustment is by rack and pinion, giving a long range; fine adjustment by micrometer screw acting on our patent movement; main tube has drawn tube provided with society screw.

The stage consists of our *square glass* stage and slide carrier attached to a firm projecting fork, to which is also attached the sub-stage. The latter may be centered or entirely removed, and receives the revolving diaphragm and accessories. The plane and concave mirrors are adjustable on the mirror bar, and this swings to any obliquity below the stage and above it for the illumination of opaque objects, on a center in the plane of the slide carrier.

We furnish with this instrument, at the choice of the purchaser, either the base described above or the brass base of the Harvard microscope; unless especially mentioned however, we always send the japanned base.

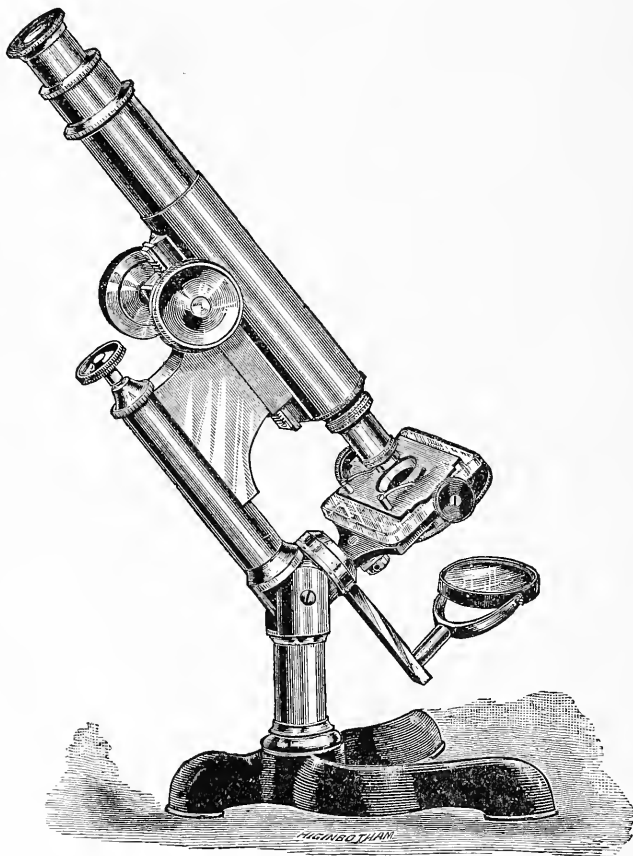
MICROSCOPES.

PHYSICIAN'S MICROSCOPE.

FIG.

5456 No. 530—Stand with any of our Huyghenian eye-pieces, in upright polished case, with handle and lock, drawer for accessories, and receptacles for eye-pieces and objectives.....\$40 00 Net.

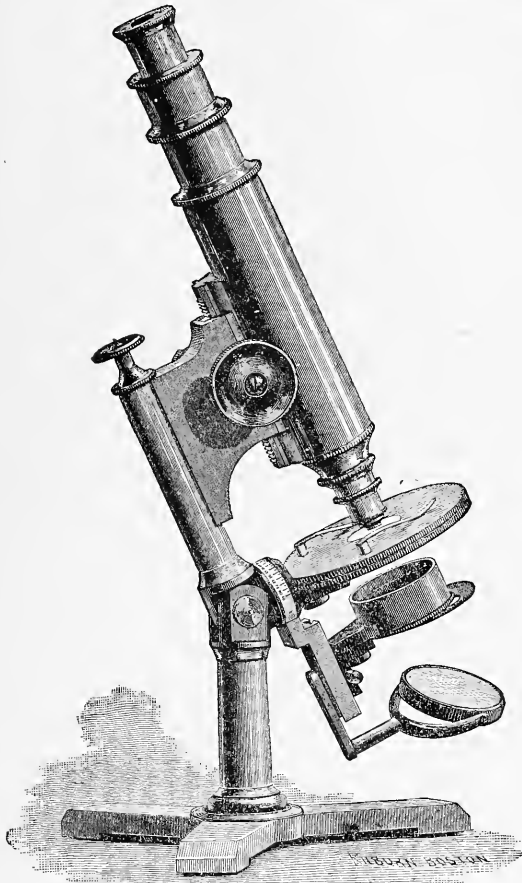
5456 No. 531 { The above with eye-pieces A (No. 700) and C (No. 702), the latter arranged with slot for micrometer.
Objectives $\frac{3}{4}$ inch (No. 605), and $\frac{1}{8}$ inch (No. 610 or 611).
Camera lucida, eye-piece micrometer, pliers, slides and covers.
Magnifying powers, with tube at full length, 50 to 485 diameters..... 65 00 "
The above, when double nose-piece is ordered with it, extra..... 5 00 "



(Cut one-third actual size).

Fig. 5456—No. 530—Bausch & Lomb's Physician's Microscope.

MICROSCOPES.



(CUT ONE-THIRD ACTUAL SIZE).

Fig. 5457.—No. 540.—Bausch & Lomb Investigator Microscope.

and pinion for coarse adjustment, fine adjustment by our patent frictionless motion; main tube with two draw-tubes, which is an entirely new feature in microscopes and is an unquestionable improvement. It permits the use of standard length of tube for quick adjustment in outside tube, same as in instruments without rack and pinion adjustment; the same for any low power objective and the use of amplifier in either combination. The outside tube has a broad gauge screw, and adapter with society screw. The stage lies in the same plane as center of movement for mirror, is of brass and has concentric, revolving motion with removable clips. It is thin to allow great obliquity, and as it rests upon a strong projecting arm, is perfectly firm under any manipulation.

Fig. 5457.—No. 540.—INVESTIGATOR MICROSCOPE.

In this stand we confidently claim to have reached a higher degree of perfection than is possessed by any other approximating it in price. It combines, in a moderate-priced instrument, the features of a first class and high priced stand, at no sacrifice of its working qualities. The different parts are ingeniously combined, are firm and strong, and in the parts subject to friction we have introduced, as much as possible new compensating bearings, which enable the instrument to endure any amount of work and still retain smooth and reliable movements. Working microscopists will understand the value of this quality. When contracted, it stands but eleven inches high, but can be extended to eighteen inches.

The base is of brass, and has the tripod form; pillar and arm of brass, connected by a solid joint, which allows inclination of the body to any angle; rack

CONTINUED ON FOLLOWING PAGE.

MICROSCOPES.

The mirror bar swings with a perfectly easy but firm motion, upon one bearing to any obliquity below, and above the stage for the illumination of opaque objects, and has affixed to it a secondary bar, to which the mirror is attached, and which allows the separate use of the latter in any position of the sub-stage. It is provided with a sliding arrangement, whereby the mirror may be moved to and from the object. The mirrors are plane and concave, and of large size. The sub-stage is adjustable along the mirror bar and entirely removable. It contains a diaphragm which may be brought directly under the stage. The ring is of standard size, and is easily centered by a set screw. Steel pin for centering stage and sub-stage accompanies the instrument.

- Fig. 5457 No. 540—Stand, with any of our Huyghenian eye-pieces, in upright polished case with handle and lock, drawer for accessories, and receptacles for eye-pieces and objectives.....\$45 00 net.
- 5457 No. 541. { The above with eye-pieces A (No. 700) and C (No. 702) the latter arranged with slot for micrometer.
 { Objectives $\frac{3}{4}$ inch (No. 605) and $\frac{1}{2}$ inch (No. 610 or 611).
 { Camera lucida, eye piece, micrometer, pliers, slides and covers
 { Magnifying powers 35 to 600 diameters.... 70 00 net.
- The above with improved glass stage and slide carrier, extra..... 5 00 "
- The above when double nose piece is ordered with it, extra..... 5 00 "

Fig. 5458. No. 545.—UNIVERSAL MICROSCOPE.

In this instrument we have followed the general construction of the Investigator, as this has proved exceedingly popular. It is however larger and heavier, with a number of new features which are enumerated in the description. The various compensating bearings which obviate friction and retain smooth movements under the most severe usage, have also been applied to it. It was made in answer to a popular demand, is elegant in design, and of the best possible work and finish. It is, as its name implies, an instrument which is universal in its application to all microscopic work.

The base is of a tripod form, and made of brass; it has on its lower surface three soft rubber pads, and is sufficiently heavy to sustain the instrument firmly at any inclination of the body. The brass pillar is large and heavy, and connected by joint for inclination of the arm. The coarse adjustment is by rack and pinion and of sufficient range to admit of the use of the lowest power objectives; the fine adjustment is by micrometer screw acting on our patent frictionless motion. The main tube has two draw tubes, by which a considerable range in length may be attained; they may be contracted to less than the standard, to decrease the height of the instrument when used in an upright position, and may be extended beyond it to increase the magnifying power; both draw tubes have society screw, and the main tube has broad gauge screw and adapter for society screw. The stage has concentric revolving motion with removable spring clips, and its upper surface lies in the same plane as center of mirror bar movement and joint for inclination; it is thin to allow the greatest obliquity, but firm under any manipulation.

MICROSCOPES.

The mirror and sub-stage bars move independent of one another or together, and while the mirror bar swings to allow the use of the mirror at any possible angle below or above the stage, the sub-stage bar revolves completely around it and may be placed between the stage and the arm, where various illuminating accessories may be used; in this position the sub-stage may also be entirely removed, which leaves the mirror alone in its relative position to the stage; the mirrors are of large size, and both these and the sub-stage are adjustable on their respective bars; the circular bearings of these are large, and are graduated to degrees and silvered. A steel pin for centering stage and sub-stage accompanies the instrument.

Fig. 5458—No. 545.

Stand, with any of our Huyghenian eye-pieces, in polished case, with handle and lock, drawer for accessories and receptacles for eye-pieces and objectives, net, \$55 00.

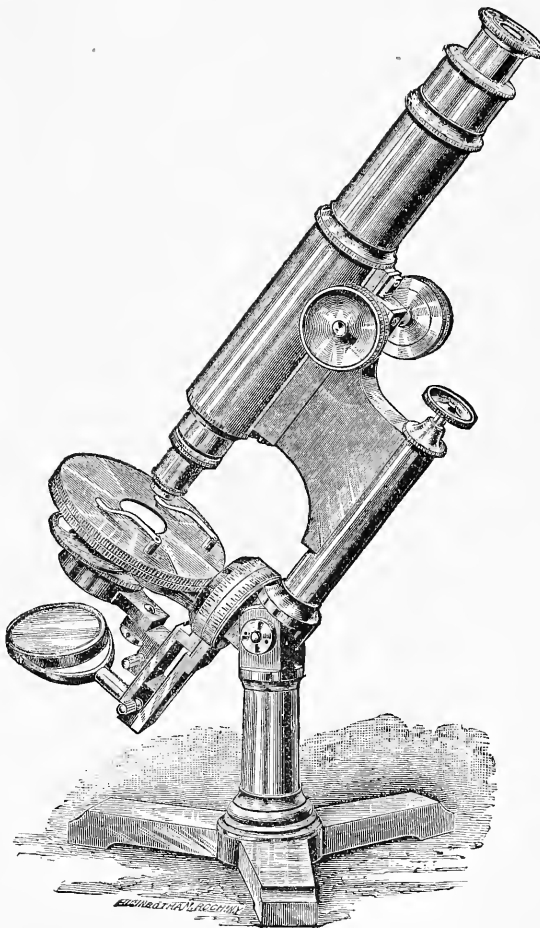
Fig. 5458—No. 546.

The above with eye-pieces A (No. 700), and C (No. 702), the latter with slot for micrometer. Objectives $\frac{3}{4}$ inch (No. 605), and $\frac{1}{2}$ (No. 610 or 611). Camera lucida, eye-pieces, micrometer, pliers, slides and covers. Magnifying powers, 35 to 600 diameters, net, \$80 00.

The above with improved glass stage and slide carrier, which fastens to the brass stage extra, net, \$5 00.

The above with rack and pinion adjustment to the sub-stage, extra, net, \$15 00.

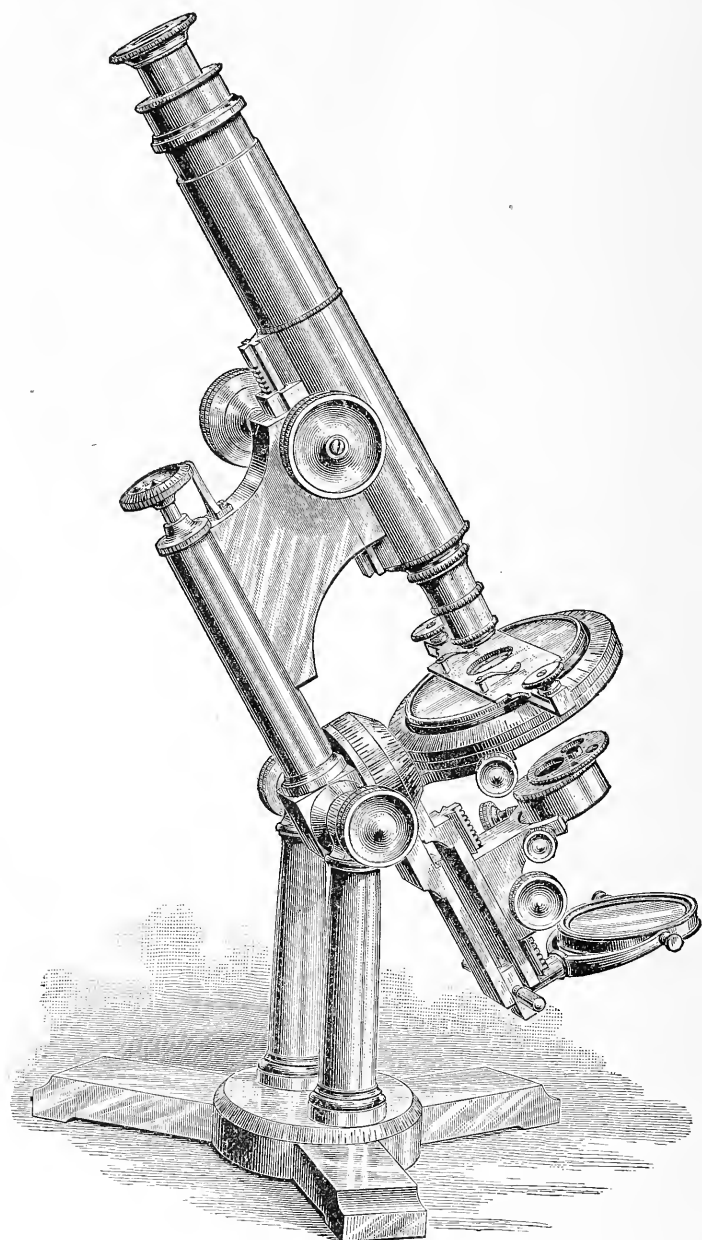
The above with centering adjustments by micrometer screws to either stage or sub-stage, extra for each, net, \$15 00.



(CUT ONE-THIRD ACTUAL SIZE.)

Fig. 5458. No. 545.—Bausch & Lomb
Universal Microscope.

MICROSCOPES.



5459

(Cut one-third actual size.)

Fig. 5459.—No. 560. Bausch & Lomb Professional Microscope.

MICROSCOPES.

Fig. 5459.—No. 560.—PROFESSIONAL MICROSCOPE.

The design of this instrument is the result of studies covering a long period, and possesses all the features which our experience and knowledge of the wants of the public have been able to suggest. It is chaste and elaborate in all its details, and possesses a number of new features which enhance its value and which we believe entitle us to the claim that it is superior to any instrument designed for the same purpose.

It is constructed entirely of brass and stands about 18 inches high, when ordinarily in use. The upper part of one pillar is graduated and forms a valuable index for the point of illumination, when the body must be brought to the upright position, in changing immersion objectives. The coarse adjustment is by rack and pinion, the latter having specially large milled heads; the fine adjustment, by our patent frictionless motion; the milled head of the micrometer screw is graduated. The main tube has draw-tube and is provided with adapter having society screw; it has the same diameter as the sub-stage, and thus permits the use of eye-pieces as condensers.

The mirror and sub-stage bar are separate and move independent of one another. Their axis, as well as the axis for inclination, are in the plane of the stage, so that when the body is inclined to the horizontal position, the center of the stage is in the axis of all the revolving parts. Both bars move freely in a circle around the stage and above it as far as the arm, and are provided with large graduated circles reading to degrees. They are arranged with stops which act when they are in line with the body, and move simultaneously when the arm on the mirror is placed in a recess in the sub-stage bar provided for it. The mirrors are plane and concave, of large size, and are adjustable along the mirror-bar, two milled heads being provided for convenience. The mirror frame may be replaced by a candle holder, for measuring the angular aperture of objectives. The sub-stage is of standard size, and is supplied with our patent Iris diaphragm; its distance from the object may be varied by rack and pinion movement, and may be entirely removed. *It is provided with new centering adjustment.*

The stage is $4\frac{1}{2}$ inches in diameter and is graduated to degrees on its beveled edge. It revolves upon a strong ring, which in turn is firmly held by a projecting arm. Three steel springs give it tension and insure its durability. These springs are arranged with slots, by which, after they are withdrawn from their recess, the stage may be removed. It is as thin as is consistent with firmness to allow great obliquity. The glass stage and slide-carrier is attached by a bayonet catch after removing the stage-plate. The centering adjustment of the stage as well as the sub-stage is effected by a new device which overcomes the difficulties of the methods hitherto used. Two screws, acted upon by two milled heads, promptly carry the stage to any point, where it is firm without requiring the use of binding screws.

This instrument is furnished in polished case, with drawer, receptacles for eye-pieces and objectives, handle, lock and key.

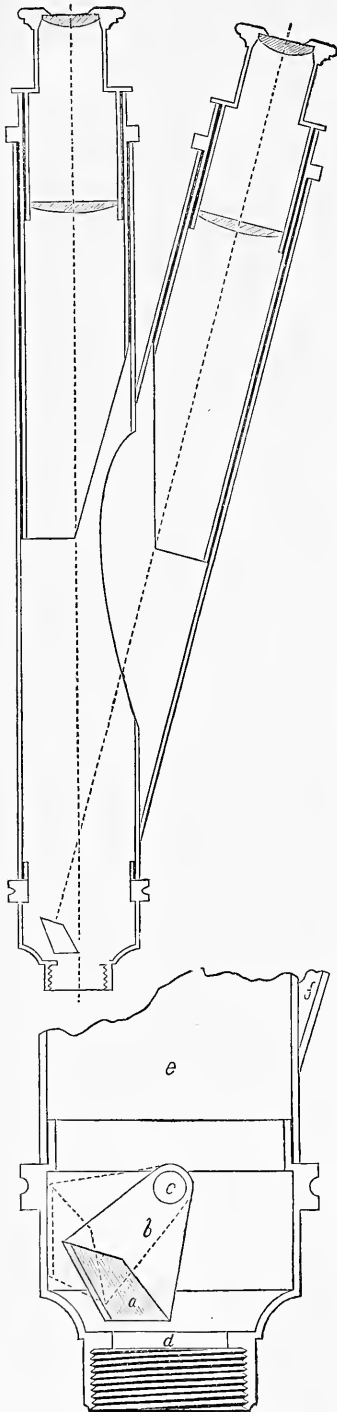
Fig. 5459, No. 560 Stand, with any two of our Huyghenian eye-pieces ^{NET.} \$135 00

Fig. 5459, No. 561	{	Stand, with eye-pieces A (No. 700), B (No. 701), C (No. 702), D (No. 703) either of the latter two with slot for micrometer.	
		Objectives 2 inch (No. 602), $\frac{3}{4}$ (No. 605), $\frac{1}{2}$ (No. 610 or 611), $\frac{1}{8}$ (No. 612).	
	{	Camera Lucida, eye-piece micrometer, pliers, slides and covers.....	185 00

MICROSCOPES.

BINOCULAR MICROSCOPES.

(PATENTED FEB. 12, 1884)



The purpose of the binocular microscope is to give a stereoscopic vision of objects whereby their form, relative distance and position of the various parts are most plainly seen. The effect is striking and is so totally different from the image in the monocular, that it can only be fully appreciated after it has been observed. Different methods for accomplishing the same purpose have been used, but the one in most general use is that devised by Mr. Wenham; by this plan the rays coming from the objective are equally divided, one-half of them passing through the vertical tube without alteration, while the other half is reflected by the interposing prism, thus giving almost equally illuminated field in both eye-pieces. The prism is mounted in a sliding box which is fitted to the nose-piece, and by which it may be put in its proper position or partially withdrawn. The great advantage of this system is that the instrument may be used as a monocular by withdrawing the prism; but in this respect it is open to serious criticism, especially of late years, in that the size of the prism and its mountings are limited by the internal diameter of the nose-piece and so decreases the opening for the passage of rays, that many of the advantages of good objectives have been lost. Provision has lately been made to remove the nose-piece altogether when used as a monocular, and replace it with one which is free from obstruction; this however consumes time, and is not always practical.

For some time it has been our purpose to obviate these difficulties, and we have succeeded in devising a number of improvements of which we have adopted the one described below; it is at once the most simple and effective. It is contained in the nose-piece which is attached to the tube; the prism, instead of being mounted in a sliding box, is fixed in a swing carriage, *b* of which the axis is in *c*. The carriage *b* is fixed to the steel spindle *c*, which in turn passes through a sleeve in the nose-piece, and is provided with a milled head,

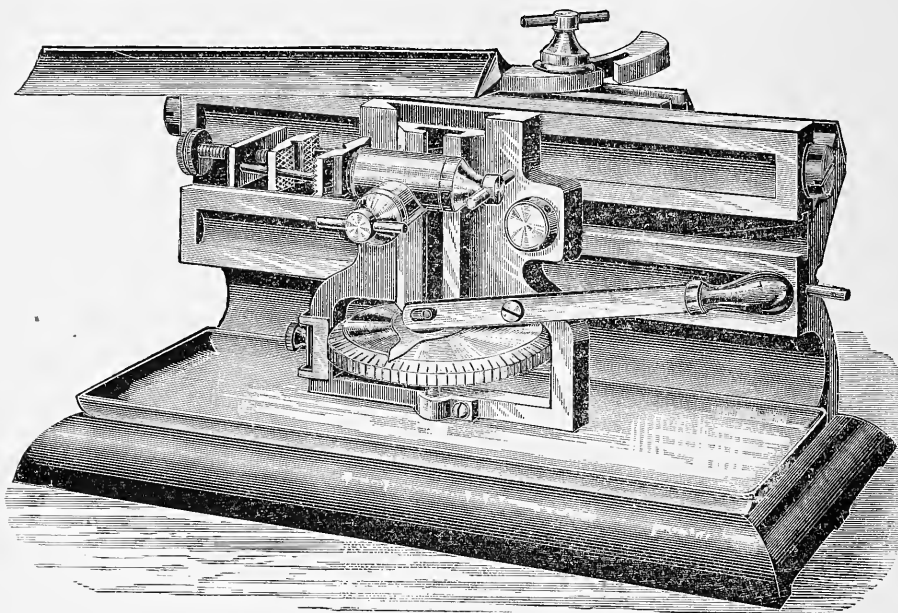
by which it is turned; the spindle and sleeve are arranged with stop-pin to limit the motion of the prism; e is the vertical, and f the oblique tube. As the posterior system of any objective with society screw does not exceed 15 m. m., we have made the opening d in the nosepiece of this size. When the prism a is in position for binocular vision, as shown in full lines, all the rays coming from the objective will be utilized, whereas when the instrument is used as a monocular and the prism is swung to the side of the tube, as shown in dotted lines, the opening d is left without obstruction. In addition to this advantage, the fittings are all close, so that there is no opportunity for the dust to enter, and being cylindrical, there is practically no wear. The draw-tubes are provided with adjustment which works them simultaneously, and accommodates eyes different distances apart. A tightening screw is also provided, whereby the tubes may be fixed at any point at which they are set.

Beside the above advantages, this form of binocular and the arrangements of the prism permit the use of higher power objectives than is the case in others. Thus a $\frac{1}{4}$ inch objective gives an excellent stereoscopic effect, while a $\frac{1}{8}$ may be made to do so, with some practice. This is of considerable importance in all cases where the above powers are required.

FIG.			N.E.T.
5455	No. 520 B	Model Stand, with binocular body, one pair of eyepieces.....	\$45 00
5455	" 521 B	Model Microscope complete, with binocular body, one pair of eyepieces.....	65 00
5456	" 530 B	Physician's Stand, with binocular body, one pair of eyepieces.....	60 00
5456	" 531 B	Physician's Microscope complete, with binocular body, two pairs of eyepieces.....	90 00
5457	" 540 B	Investigator Stand, with binocular body, one pair of eyepieces.....	65 00
5457	" 541 B	Investigator Microscope complete, with binocular body, two pairs of eyepieces.....	95 00
5458	" 545 B	Universal Stand, with binocular body, one pair of eyepieces.....	75 00
5458	" 546 B	Universal Microscope complete, with binocular body, two pairs of eyepieces.....	105 00
	550 B	American Concentric Stand, with binocular body, one pair of eyepieces.....	115 00
	551 B	American Concentric Microscope complete, with binocular body, two pairs of eyepieces.....	145 00
5459	" 560 B	Professional Stand, with binocular body, adjustment by rack and pinion, one pair of eyepieces..	175 00
5459	" 561 B	Professional Microscope complete, with binocular body, adjustment by rack and pinion, two pairs of eyepieces, and extra C. and D., one arranged with micrometer.....	225 00

Send for our Pamphlet describing Objectives and Eyepieces, and Microscopes in general.

MICROSCOPIC DISSECTING INSTRUMENTS.



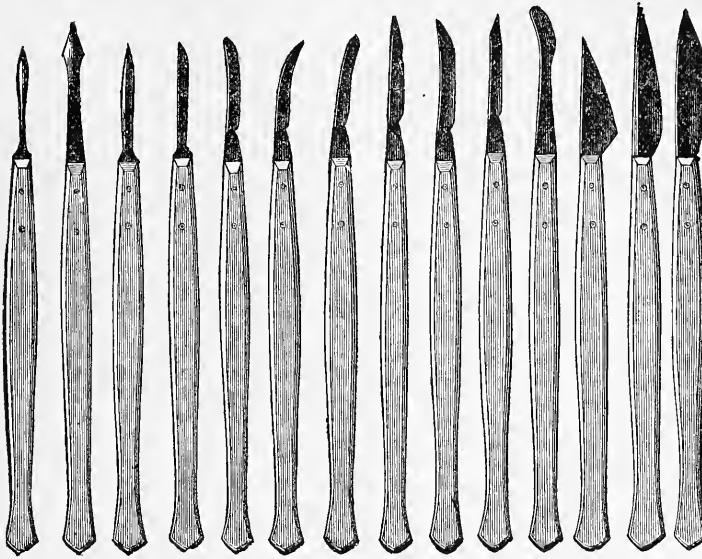
(Pat. September 8, 1885.)

Fig. 5460.—No. 1243.—LABORATORY MICROTOME.

No. 1243	Laboratory Microtome, small, without knife, as described...	\$32 50
" 1244	Knife for same, in morocco case.....	8 00
" 1245	Both, when taken together.....	40 00
" 1246	Laboratory Microtome, large, without knife, as described...	38 00
" 1247	Knife for same, in morocco case.....	10 00
" 1248	Both, when taken together.....	47 50
	Polished Case, with lock and key, strap for carrying, and removable cover, for either size, extra.....	2 50

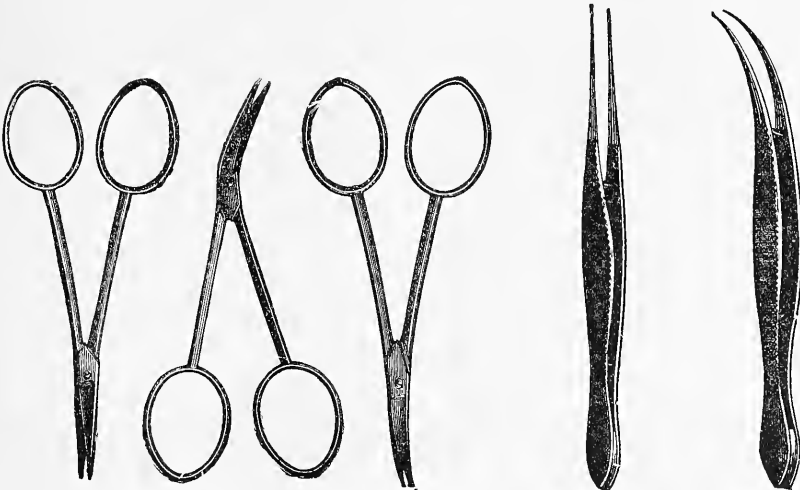
Improvements in the methods of cutting accurate and reliable sections have, for a long time, engaged the attention of workers and manufacturers, and of late a fresh impetus has been given the subject in the new principles which are involved in those recently constructed at several prominent seats of learning in Europe. They have been made of various forms, and great ingenuity and skill have been shown in their construction. Our first endeavor in this direction was the independent construction of an instrument which has now been generally adopted, and which forms the basis of our present form. At an early date it was, however, noticed that it was open to a number of serious objections. Since then we have given the subject considerable study, and with the assistance of several prominent histologists, we have succeeded in perfecting an instrument which combines the approved advantages of the various styles, and possesses new and important improvements not contained in others. A large number are now in use.

MICROSCOPIC DISSECTING INSTRUMENTS.



5461

FIG.		
*5461	Dissecting Knives, each.....	\$0 75
5462	“ Needles, straight or bent.....	15
5463	“ Needle-holder, with clamp.....	50



5464

5469

5470

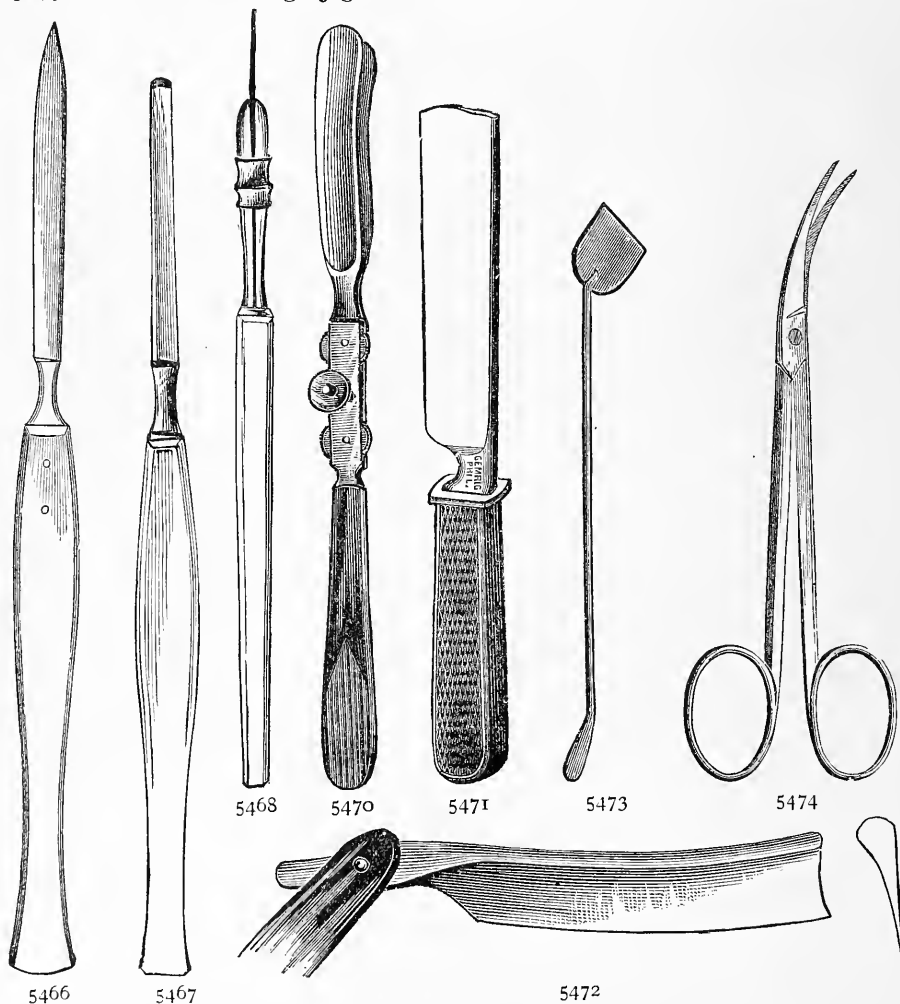
FIG.		
*5464	Dissecting Scissors.....	\$1 50
*5469	Dissecting Forceps, Fine Steel.....each	1 00
*5470	“ “ “ “	1 00

MICROSCOPIC DISSECTING INSTRUMENTS.

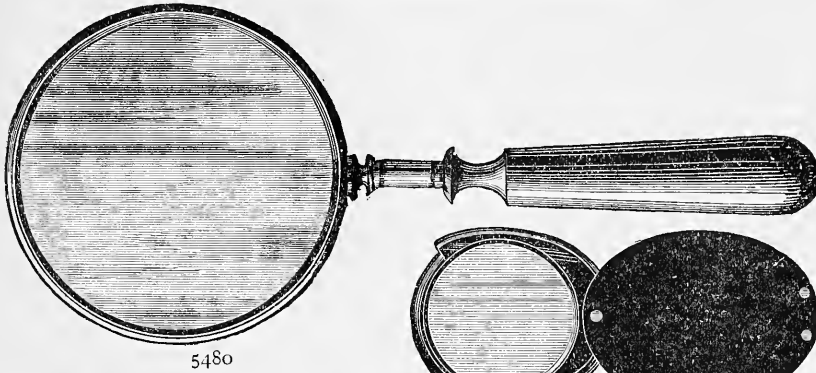
FIG.		
*5466	Sharp Pointed Microscopic Knife, ivory handle.....	\$ 1 00
*5467	Blunt " " " " " "	1 00
*5468	Microscopic Needle Holder " "	1 00
*5469	See preceding page.	
*5470	Valentine's Section Knife.....	6 00
*5471	Section Knife, ebony handle, in Morocco case.....	3 25
*5472	Microscopic Section Razors.....	\$1 50 to 3 00
*5473	Nickel Plated Trowel or Lifter.....	75
*5474	Very Fine Microscopic Scissors.....	1 10

SLIDES AND COVER GLASSES.

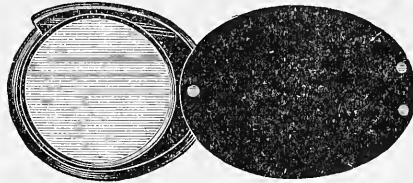
5475	Glass Slides, ground edges, 3x1, per gross.....	1 75
5476	" Covers No. 2 (circles), $\frac{3}{4}$ inch, per oz.....	1 25
5477	" " " " $\frac{1}{2}$ " " "	1 50
5478	" " No. 3 " $\frac{5}{8}$ " " "	1 25
5479	Boxes for holding 25 glass slides.....each	10



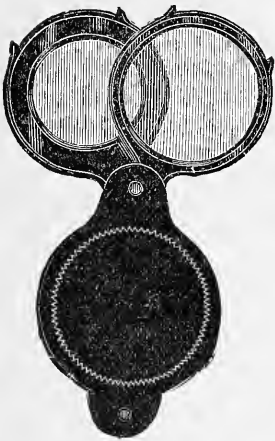
HAND AND POCKET LENSES.



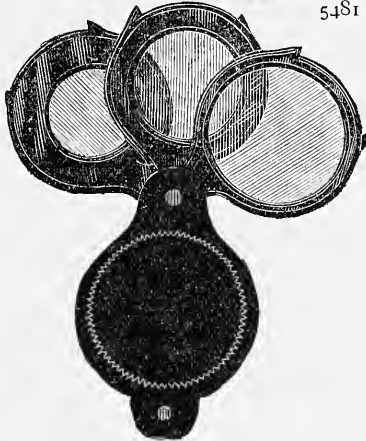
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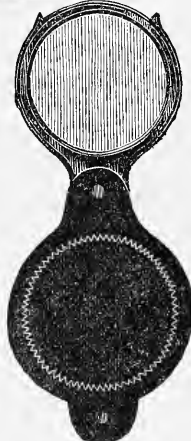
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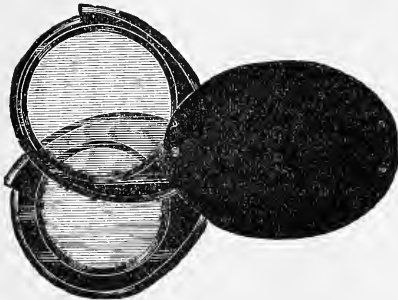
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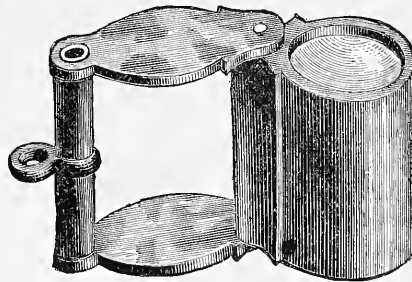
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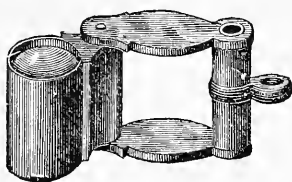


5490

*5480	Hand Lens, Metal Rimmed.....	\$0 75 to \$	1 75
*5481	Single Hard Rubber Pocket Lens, $\frac{3}{4}$ inch diameter		35
*5481	“ “ “ “ I “		50
*5481	“ “ “ “ $1\frac{1}{4}$ “		60
*5481	“ “ “ “ $1\frac{1}{2}$ “		75
*5481	“ “ “ “ $1\frac{3}{4}$ “		1 00
*5482	Double “ “ “ “ $\frac{3}{4}$ “		75
*5482	“ “ “ “ I “		75

HAND AND POCKET LENSES.

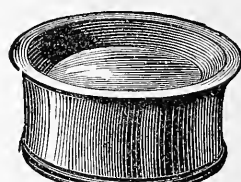
FIG.						
*5482	Double Hard Rubber Pocket Lens,	1 $\frac{1}{4}$	inch diameter.....	\$	1	00
*5482	"	"	" " 1 $\frac{1}{2}$ "		1	25
*5482	"	"	" " 1 $\frac{3}{4}$ "		1	50
*5483	Single	"	" " same size as Fig. 5481... from \$	0	50	to 1 00
*5484	Double	"	" " " 5482.....	"	60	to 1 25
*5485	Triple	"	" "		1	60 to 1 50
*5486	Round Metal Frame Lens.....				1	50 to 2 25
*5487	Metal Frame and Handle Lens.....				75	to 1 00
*5488	Lens with Stand.....					50
*5489	Coddington Lens, $\frac{1}{2}$ inch Focus, Metal Mounted				1	50
*5490	" " " " " " " "				2	00



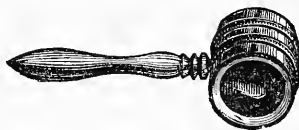
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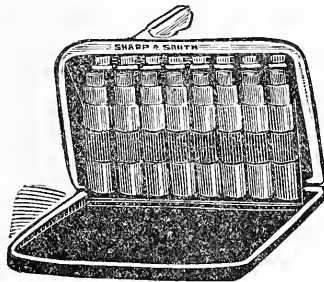
PHYSICIANS' POCKET MEDICINE CASES.

FIG.						
5528	contains 20	2	dram vials, Morocco strap.....	\$	1	50
5529	"	4	2 $\frac{1}{2}$ " " for the vest pocket.....		60	
5536	"	18	2 $\frac{1}{2}$ " " two rows of vials, upright.....		1	50
5537	"	20	2 " " wooden frame, covered with Morocco..		1	50
5544	"	16	2 " " russet leather, strap.....		75	
*5549	"	16	1 $\frac{1}{2}$ " " portmonnaie strap.....		1	30
*5589	"	20	4 " " Morocco, gilt, strap.....		1	85
5591	"	18	1 $\frac{1}{2}$ " " portmonnaie style.....		1	50
5594	"	24	2 " " " "		2	60
*5600	"	24	2 " " gilt numbers.....		1	85
*5601	"	12	2 $\frac{1}{2}$ " " and 8 4-dr. vials, best Turkey Morocco		2	60
5602	"	20	2 " " wrapper case.....		1	50
5603	"	12	2 " " and 8 4-dr. vials, wrapper case.....		1	85
5604	"	10	2 " " and 7 4-dr. vials, and 2 1 ounce glass			
			top bottles, upright case.....		2	25
5605	"	8	3 " " on one side, and 2 pockets for powders			
			the other side, best Russia leather..		2	60
5606	"	16	3 " " of best Russia leather.....		3	00
5609	"	6	3 " " wrapper case, red.....		1	15
5610	"	20	2 " " sewed, red.		1	50
5611	"	10	3 " " wrapper case, red.....		1	30
5612	"	12	3 " " wrapper ends, covered.....		1	50
5612	"	12	3 " " Russia leather.....		2	25
5613	"	10	3 " " and 14 1 $\frac{1}{3}$ -dram vials, red.....		2	25
5614	"	18	3 " " red Morocco.....		1	85

All Instruments designated by a * are illustrated.

PHYSICIANS' POCKET MEDICINE CASES.

FIG.	5615	contains	24	3	dram vials,	and 16	1 1/3-dr. vials, 3-fold, 2 pockets.	\$2 25
	5616	"	24	2	"	"	2 pockets, and places for powders.....	2 25
	5617	"	10	4	"	"	and 18 1 1/2-dr. vials, all upright.....	2 00
	5619	"	10	4	"	"	and 28 2-dr. vials, 3-fold, imitation Russia.....	3 00
	5621	"	8	2	"	"	on one side.....	95
*	5622	"	10	4	"	"	and 14 2-dr. vials, imitation Russia....	2 25
	5625	"	20	1 1/2	"	"	amber, book style, Morocco.....	2 25
	5627	"	24	2	"	"	calfskin clasp.....	2 00
	5629	"	10	2	"	"	amber, stiff ends.....	1 15
	5630	"	6	1	"	"	Morocco.....	60
	5633	"	8	4	"	"	glass stopper, and 12 2-dr. amber stiff end.....	2 60
	5634	"	16	4	"	"	glass stopper, with pocket and clasp...	3 00
	5635	"	20	1	"	"	wrapper case, metallic ends, red soft Morocco.....	1 85
	5636	"	24	2	"	"	wrapper case, metallic ends, red soft Morocco.....	2 25
	5638	"	10	3	"	"	and 14 1 1/2-dr. vials, wrapper case, me- tallic ends, red soft Morocco.....	2 60
	5639	"	30	2	"	"	long.....	2 60
	5640	"	15	2	"	"	long, and 30 1-dr. short vials, wrapper case, metallic ends.....	2 60
	5641	"	12	2	"	"	glass stopper vials, metallic ends, soft red Morocco.....	2 25
	5642	"	12	2	"	"	glass stoppers and 10 3-dr. cork stopper vials, metallic ends, soft red Morocco	2 60
	5644	"	20	2	"	"	russet leather, strap.....	95
	5645	"	10	2	"	"	G. S. vials, with memorandum slate, Morocco	2 25
	5646	"	10	2	"	"	G. S., 12 2-dr. C. S., and 15 1 1/2 dr. vials, Morocco.....	3 35
	5647	"	10	3	"	"	G. S., and 15 2-dr. C. S. vials, stiff ends, dark Morocco.....	2 60
	5648	"	8	3	"	"	G. S. bottles, Morocco....	2 25
	5652	"	12	2	"	"	vials.....	2 60
	5653	"	10	2	"	"	soft red Morocco.....	1 85
	5654	"	24	2	"	"	" " ".....	3 00
*	5655	"	12	2	"	"	" " ".....	2 25
	5656	"	15	2	"	"	" " ".....	2 60
	5657	Peacock's Patent Case,	18	2-dr. vials.....				1 85
	5658	"	20	"	"	"	".....	2 25



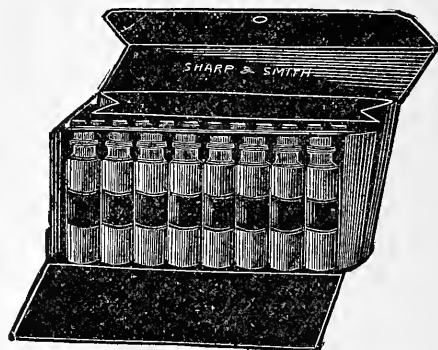
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For illustrations, see next page.

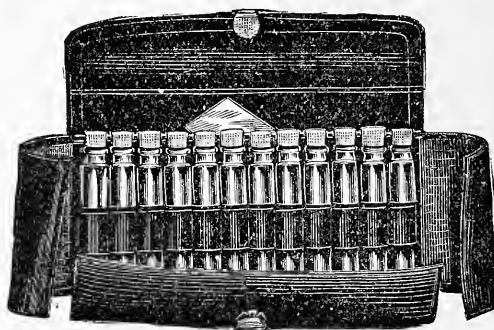
HYSICIANS' POCKET MEDICINE CASES.



5589



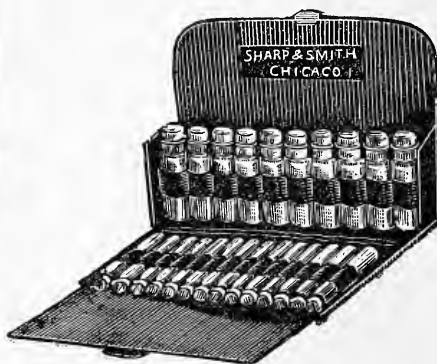
5601



5655



5600



5622

PHYSICIANS' HAND CASES.

- FIG.
5659 A Sharp & Smith—Morocco—Contains 12 4-dram vials and 24 2-dram vials, including pockets for powders, etc.; length, 9 inches; width, $2\frac{3}{8}$ inches; height, 5 inches. Price, \$4.50 net.
- 5660 B Sharp & Smith—Morocco—Contains 24 4-dram vials and 24 2-dram vials, including pockets for powders, etc.; length 9 inches; width, 3 inches; height, 5 inches. Price, \$5.25 net.
- 5661 C Sharp & Smith—Morocco—Contains 6 $1\frac{1}{2}$ -oz. G. S. bottles, 12 1-dram vials and 6 3-dram vials, including pockets for powders, etc.; length, $9\frac{1}{2}$ inches; width, $2\frac{3}{4}$ inches; height, 5 inches. Price, \$4.50 net.
- 5662 D Sharp & Smith—Russet—Contains 6 $1\frac{1}{2}$ -oz. G. S. bottles, 12 1-dram vials and 6 3-dram vials, including pockets for powders, etc.; length, $9\frac{1}{2}$ inches; width, $2\frac{3}{4}$ inches; height, 5 inches. Price, \$5.25 net.
- *5663 E Sharp & Smith—Russet—Contains 6 $1\frac{1}{2}$ -oz. G. S. bottles, 18 3-dram vials and 12 1-dram vials, including pockets for powders, etc.; length, $9\frac{1}{2}$ inches; width, $3\frac{3}{4}$ inches; height, 5 inches. Price, \$6.00 net.
- *5664 F Sharp & Smith—Russet—Contains 12 $1\frac{1}{2}$ -oz. G. S. bottles, 6 3-dram vials and 12 1-dram vials, including pockets for powders, etc.; length, $9\frac{1}{2}$ inches; width, 4 inches; height, 5 inches. Price, \$6.35 net.
- 5665 G Sharp & Smith—Red Horse-hide—Contains 8 $1\frac{1}{2}$ -oz. G. S. bottles, 10 1-oz. C. S. bottles, 8 4-dram vials and 14 2-dram vials; also space for instruments; length, $12\frac{1}{4}$ inches; width, $5\frac{1}{2}$ inches; height, $5\frac{1}{2}$ inches. Price, \$7.85 net.
- *5666 G (Special). Sharp & Smith—Red Horse-hide—Contains 8 $1\frac{1}{2}$ -oz. G. S. bottles, 11 1-oz. C. S. round vials, 8 4-dram C. S. round vials and 16 2-dram C. S. round vials; also space for instruments, pockets for powders, etc.; length, 13 inches; width, $5\frac{3}{4}$ inches; height, $5\frac{1}{2}$ inches, with flaps on lid. Price, \$9.00 net.
- *5667 H Sharp & Smith—Red Horse-hide, N. P. Trimmings—Contains 8 $1\frac{1}{2}$ -oz. G. S. bottles, 10 1-oz. C. S. round bottles, 12 $\frac{3}{4}$ -oz. C. S. round bottles, 8 4-dram C. S. vials and 10 2-dram C. S. vials, including pockets for powders, etc.; length, $11\frac{1}{2}$ inches; width, 5 inches; height, $5\frac{1}{2}$ inches. Price, \$9.00 net.
- 5668 I Sharp & Smith—Russet—Contains 16 $1\frac{1}{2}$ -oz. G. S. bottles, 10 1-oz. C. S. round bottles, 8 4-dram C. S. vials and 14 2-dram C. S. vials, including pockets for powders, etc.; length, $12\frac{1}{2}$ inches; width, $5\frac{3}{4}$ inches; height, $5\frac{1}{2}$ inches. Price, \$9.75 net.
- *5669 J Sharp & Smith—Russet, buckle fastening—Contains 16 $1\frac{1}{2}$ -oz. G. S. bottles, 10 1-oz. C. S. round bottles, 8 4-dram C. S. vials and 14 2-dram C. S. vials, including pockets for powders, etc.; length, $12\frac{3}{4}$ inches; width, 6 inches; height, 6 inches. Price, \$10.50 net.
- *5670 K Sharp & Smith—Morocco, N. P. Trimmings—Contains 12 1-oz. C. S. round vials, 8 6-dram C. S. round vials and 16 2-dram C. S. round vials on one side; space, with loop for instruments on the other; length, $11\frac{1}{2}$ inches; width, 4 inches; height, $6\frac{1}{2}$ inches. Price, \$11.25 net.
- 5671 L Sharp & Smith—Dark Morocco—Contains 8 1-oz., 12 4-dram, 15 $1\frac{1}{2}$ -dram and 15 1-dram corked vials, and elastic loops for surgical instruments; length, $9\frac{1}{4}$ inches; width, $2\frac{3}{4}$ inches; height, $5\frac{1}{2}$ inches. Price, \$6.75 net.

PHYSICIANS' HAND CASES.

- FIG.
 5672 M Sharp & Smith—Seal Skin—Contains 2 2-oz. G. S. vials, 6 1-oz., 8 4-dram and 18 2-dram corked vials, and elastic loops for surgical instruments; length, 11 inches; width, 3 inches; height, $5\frac{3}{4}$ inches. Price, \$9.00 net.
- *5673 N Sharp & Smith—Dark Morocco—Contains 8 1-oz., 12 4-dram and 24 2-dram corked vials, and space for sundries; length, 9 inches; width, $4\frac{1}{2}$ inches; height, $4\frac{1}{2}$ inches. Price, \$6.35 net.
- *5674 O (Homœopathic). Sharp & Smith—Dark Morocco, N. P. Trimmings—Contains 12 1-oz. C. S. round vials, 45 2-dram C. S. round vials and 60 1-dram C. S. round vials, including pockets for powders, etc.; length, 11 inches; width, $3\frac{3}{4}$ inches; height, $6\frac{1}{2}$ inches. Price, \$12.00 net.
- 5675 P (Shinn's). Sharp & Smith—Dark Morocco, N. P. Trimmings—Contains 10 1-oz. C. S. round salt-mouth powder vials, 10 $\frac{1}{2}$ oz. C. S. salt-mouth powder vials, 10 1-oz. rubber-stoppered tincture vials, and 10 4-dram rubber-stoppered tincture vials, including pockets for powders, etc.; length, 10 inches; width, 4 inches; height, 7 inches. Price, \$10.50 net.
- 5676 Q Sharp & Smith—Dark Morocco, N. P. Trimmings—Contains 26 3-dram, 26 1-oz. and 4 3-oz cork stoppered vials, and space for powders, etc.; length, 12 inches; width, $5\frac{3}{4}$ inches; height, $7\frac{1}{2}$ inches. Price, \$10.00 net.
- 5677 R Sharp & Smith—Dark Morocco, N. P. Trimmings—Contains 20 1-oz. cork stoppered vials, 13 $\frac{3}{4}$ -oz. cork stoppered vials; 2 spaces, $4\frac{1}{2}$ inches wide, $5\frac{1}{2}$ inches long, and $1\frac{1}{4}$ inches deep, for instruments; also space $\frac{1}{8}$ inch deep under vials for powders, etc. Length, 10 inches; width, $4\frac{3}{4}$ inches; height, $6\frac{1}{2}$ inches. Price, \$11.25 net.

Fig. 5678.—Sharp & Smith's Emergency Case.

FOR RAILROADS AND STEAMBOATS.

Dark Morocco, N. P. Trimmings. Contains:

- | | |
|---|--------------------------------------|
| 2 4-oz G. S. Bottles. | 1 English Lens Thermometer. |
| 7 1-oz. G. S. Bottles. | 1 No. 3 X Hypodermic Syringe. |
| 2 2-dram G. S. vials. | 1 Combined Male and Female Catheter. |
| 1 pair Bone Forceps, with spring. | 1 pair Scissors. |
| 1 Metacarpal Saw, lifting back. | 1 pair Dressing Forceps. |
| 1 shell slide-catch Probe and sharp curved Bistoury. | 3 Field Tourniquets. |
| 1 shell slide-catch Scalpel and Tenotome. | 1 pair Probes. |
| 1 coil Silver Wire. | |
| Needles, Silk, space for Sponges, Roller Bandages, etc. | |
| Length, $10\frac{1}{2}$ inches; width, 5 inches; height, $6\frac{1}{2}$ inches. Price, \$45.00. | |

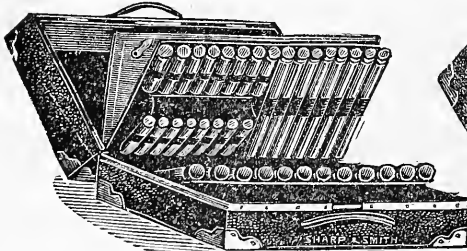


Fig. 5670—K Case.

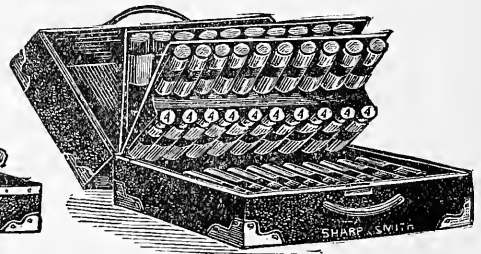


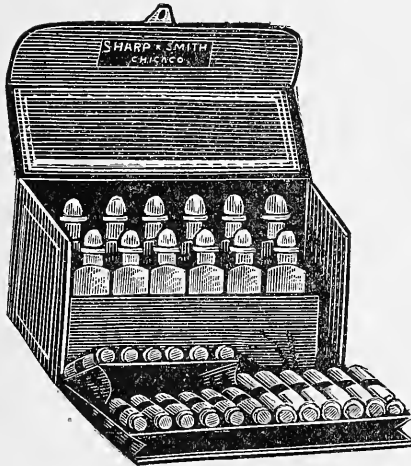
Fig. 5674—O Case.

PHYSICIANS' HAND CASES.



5667-II

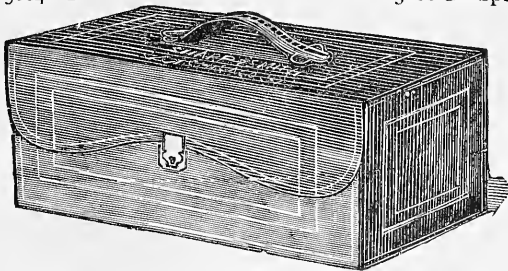
(The back row of bottles in this case are all glass stoppers).



5664-F

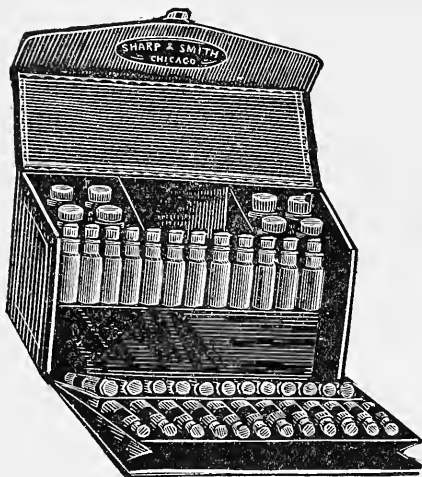


5666 G-Special.



5666-Closed.

PHYSICIANS' HAND CASES.



5673—N



5663—E



5669—J

WE MANUFACTURE

BUGGY, HAND, AND POCKET MEDICINE CASES

TO ORDER,

ACCORDING TO THE PECULIAR WANTS OF EACH PHYSICIAN.

MARSHALL'S PATENT CONVERTIBLE SADDLEBAGS
HAND CASE.

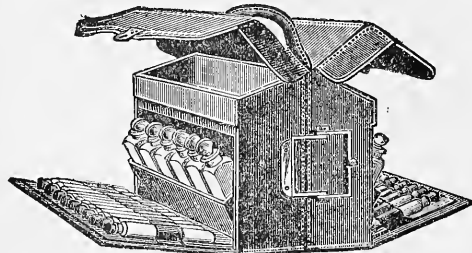
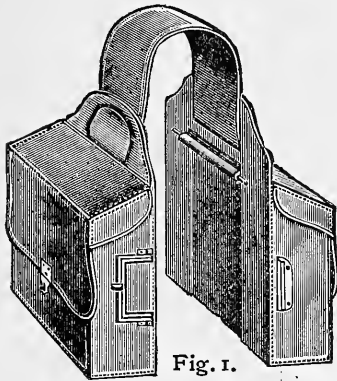


Fig. 1 is Fig. 2 in Saddlebags Form.
Fig. 2 is Fig. 1 in Hand Case Form.

Original and Only Perfectly Convertible Hand Case Saddlebags in the World.

Has two trays, one on either side, $7\frac{1}{2}$ in. long, $2\frac{1}{4}$ in. deep, by $2\frac{1}{2}$ wide, 12 $1\frac{1}{2}$ oz. G. S. Bottles, 16 6-dram and 8 2-dram cork stoppered vials. Total, 36 bottles. Spaces between round and square bottles for papers.

Sent prepaid, to your nearest express office on receipt of price.

Nos. 36 or 59	A. Grade or Russet Leather.....	\$16 00
" " "	B " " Black "	15 50

A and B Grades are exactly alike in every respect except color of Leather.
Size of case, 6 x 8 wide x8 high.

No. 36. Price of the Pat. Top or Coverlid.....\$12 50
The size of the regular make, either A Grade—Russet; B Grade—Black,
or “The Leader” Casebags is 6x8x8.

They all convert equally well, joining perfectly by a hinge device, thus swallowing up the piece that crosses the saddle when it is desired to use it as a Buggy case. Fine maroon colored leather lining. (No tin to rust.)

They are perfect, and excel all other cases in the market, either as a first class Buggy Case, or Saddlebags, and shift instantly to either form or article as needed.

The "Leader" is as fine in appearance as either A or B Grades, having same internal arrangement, and has same silver trimmings, but patent leather instead of leather flap or cover lid, and the lid projects (at ends) instead of bow-cap.

When case is open the whole interior is in full view, and any article can be removed, as wanted, without disturbing another. Every case warranted.

In ordering please designate by grade—A, B, or Leader—as desired.

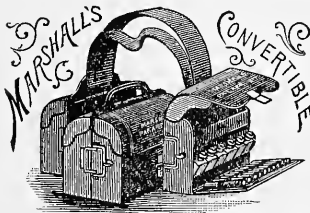
ONE ARTICLE IN TWO FORMS.

Box Pattern, No. 33. \$10.00.

Cut No. 33 converts by same hinge device as Nos. 36 and 59. Here bags are shown arched over the respective Buggy-case into which they convert. Contents: 1 sundries space, 11 1-oz. screw top; 11 6-dr. 11 5-dr. cork stoppers.

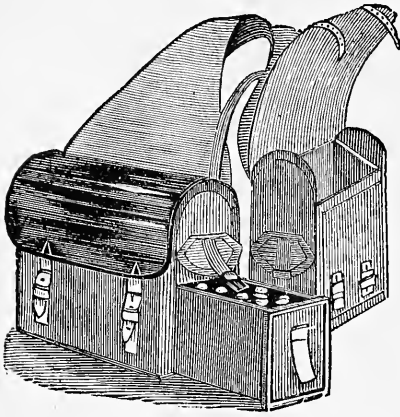
The No. of case indicates the bottles and vials contained. When ordering do not allow any dealer to put you off with, or substitute any other case.

See that each Case-bag is branded with registered number, and bears the name Marshall, with date of patent.



BUGGY-CASE-SADDLE-BAGS

MEDICAL SADDLE BAGS.



5679

MEDICAL SADDLE BAGS.

MADE OF

BEST RUSSET BRIDLE LEATHER,

PATENT LEATHER COVERS.

Space under Covers for Instruments, etc.
Pattern Mahogany Drawers in the end of
lower part.

Solid Leather Drawers one Dollar extra.

Fig. 5679	No. 1, containing	20 1 oz., 4 1 ½ oz. bottles, ground stoppers	\$10 60
	Ex. No. 2, “	20 1 oz., 4 1 ½ oz. “ “ “	“ “ “
		and pockets	... 11 50
	No. 3, “	16 1 oz., 4 1 ½ oz. “ “ “	... 9 75
	No. 4, “	16 1 oz., bottles, glass stoppers	... 8 75
	No. 5, “	16 1 oz., “ cork “	... 7 65

MEDICAL SADDLE BAGS.

MADE OF

BEST RUSSET BRIDLE LEATHER,

PATENT LEATHER COVERS.

DRAWERS OF POLISHED MAHOGANY,
VELVET LINED.

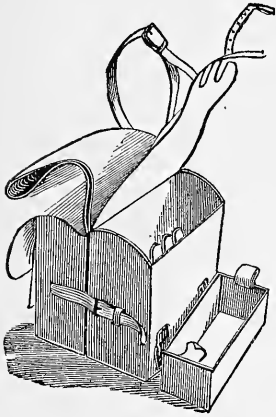


5680

Fig. 5680	No. 6, containing	12 1 ½ oz., 12 ¾ oz., 24 bottles	.....\$10 20
	No. 7, “	10 ½ oz., 10 ¾ oz., 20 “	..... 9 35
	No. 8, “	8 1 oz., 8 ¾ oz., 16 “	..... 8 50
	FLAT PATTERN—TWO FLAPS.		
	No. 9, containing	10 1 ½ oz., 10 ¾ oz., 20 bottles	.....\$ 9 75
	No. 10 “	12 1 ½ oz., 12 ¾ oz., 24 “	..... 10 60

MEDICAL SADDLE BAGS.

BOX PATTERN.



5861

Fig. 5681.

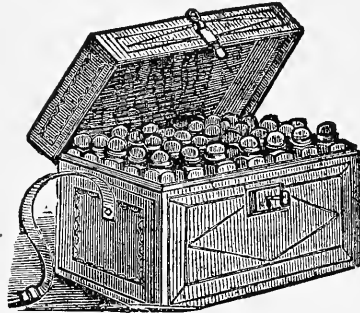
- No. 11, containing 20 ground stoppered bottles.....\$9 35
- No. 12. Plain Saddle Bags, containing 20 cork stoppered vials. 7 25
- No. 13. Plain Saddle Bags, containing 24 cork stoppered vials. 7 90

MEDICINE CHESTS FOR PHYSICIANS,

MADE OF

BEST RUSSET LEATHER,

Containing the following Square Glass stoppered Bottles:



5682

IN MAHOGANY TRAYS, MORTARS, GRADUATED MEASURE.

Four Jars, Tray for Scales, and Space for Instruments under Bottles.

THE SIZE IS BY INCHES.

No.	oz.	oz.	oz.	oz.	Bottles.	Price.	Length.	Width.	Height.
Fig. 5682. 1, containing	4..4	16..2	18..1	6..½	44	\$17 85	14	9¼	9¼
2, " "	1..4	16..2	19..1	.....	37	15 75	12¾	8½	9¼
3, (see above cut)	2..4	14..2	16..1	.....	32	16 00	11	8¼	9¼
4, containing	2..4	12..2	13..1	.....	27	13 25	9¾	8¼	9¼

The following without Mortars, Measures or Jars:

5, containing	15..½	\$8 50	8½	5¾	7½
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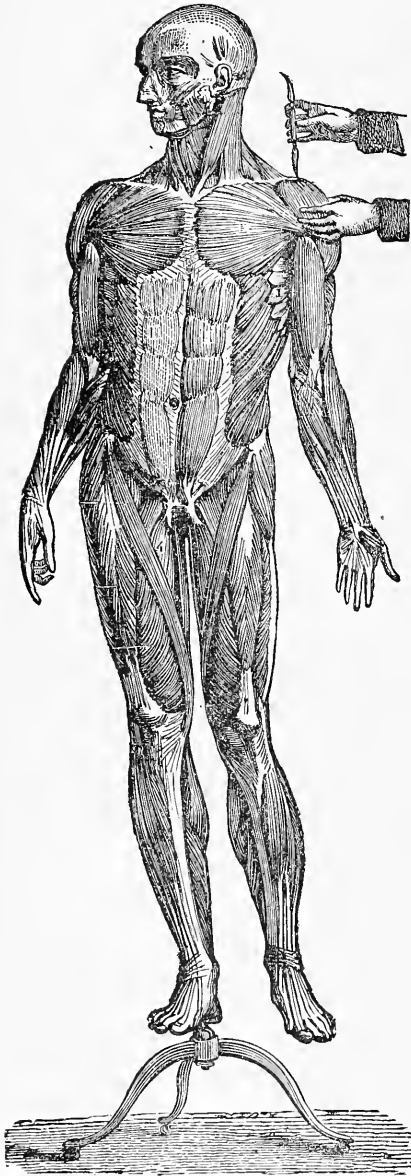
Tray in front of Bottles:

6, containing	10..2	4..1	14	\$8 10	9	6¼	5¾
7, " "	5..4	7..2	6..1	...	18	9 75	10	7¾	5¾
8, " "	4..4	9..2	12..1	6..½	31	11 90	13	9¾	5¾

(ALL THE ABOVE WITH LOCKS).

CLASTIC ANATOMICAL MODELS OF DR. AUZOUX.

- FIG. 5700 Complete model of a male human body, 5 feet 10 inches high, composed of 92 parts that may be detached, and exhibiting over 2,000 details of the viscera, muscles, nerves, blood-vessels, etc.; that is all that may be embraced in a complete treatise of anatomy....\$1200 00
- FIG. 5701 Model of a man $3\frac{1}{2}$ feet high, consisting of the same pieces and exhibiting the same details as the large model..... 600 00
- 5702 Female pelvis, with internal and external organs of generation, lumbar vertebræ, diaphragm, muscles, aponeuroses of the perineum, vessels and nerves..... 150 00
- 5703 Eight uteri, containing the product of conception at the 1st, 2d, 3d, 4th, 8th and 9th months, with examples of tubular and ovarian pregnancy. 150 00
- 5704 Dura mater, with a portion of the basis of the cranium, half again as large as life, exhibiting its folds, venous sinuses, Pacchionian glands, etc. 40 00
- 5705 Adult heart, separable into two parts, showing the right and left cavities, muscular fibers, vessels, nerves, orifices and valves..... 25 00
- 5706 Heart of fœtus, large size, separable into two parts, showing the right and left cavities, the foramen ovalis, the Eustachian valve, the arterial canal, etc..... 25 00
- 5705 Eye, complete, greatly enlarged. Improved model, on which is exhibited—not only the muscles, vessels, nerves, membranes, vitreous body and crystal lens, in separable parts; but also the different microscopic strata of the re



Dr. Auzoux' Models, Male or Female,
(Manikin) Mounted on Stand
(imported to order only).

FIG.	tina, choroid and iris, as they are described by modern anatomists.....	\$ 35 00
5706	Eye, divided by a vertical section, and representing its inner half with all the foregoing details and the disposition of the anterior and posterior chambers; and in addition, a portion of the orbit, the conjunctiva, the structure of the eyelids, the Meibomian glands, the lachrymal canals and points; the muscles of Horner, etc.....	35 00
5707	Temporal Bone, 2 feet long, showing the internal, middle and external ear, in their most minute details; the expansion of the auditory nerve, the fenestra ovalis, fenestra rotunda, membranous canals, endolymph, perilymph, double spiral of the cochlea, infundibulum, etc. All parts of this model are separable, and by its means the mechanism of audition may be clearly explained and understood.....	60 00
5708	Temporal Bone, half the size of the preceding, showing the ear in the same manner.....	40 00
5709	Gigantic Larynx, 12 inches long. On this preparation each muscle and cartilage may be separately removed, and its action demonstrated; also the action of the vocal chords and the mechanism of the voice.....	75 00

COLLECTION OF ANATOMICAL MODELS OF PLASTER PARIS.

THEY APPEAR IN THEIR NATURAL COLORS AND ARE NOW RECOMMENDED
BY A NUMBER OF PROMINENT COLLEGES.

FIG.

(A.) MAGNIFIED MODELS.

5710	No. 1.—Human heart, front part to be taken off, showing the four chambers of the heart, together with their respective openings and valves.....	\$ 8 50
5711	No. 2.—Human eye, the upper part of the pupil (with a microscopic illustration of the retina) to be taken off, so as to show the cornea, iris, the vitreous body and crystalline lens.....	7 00
5712	No. 3.—Human ear, showing the drum and membrana tympani, the ossicles, labyrinth, and the cochlea half open...	8 50
5713	No. 4.—Human skin, vertical section, showing the sudoriferous glands, the organism of the hair, the pigment granules, and the organs of feeling.....	4 50
5714	No. 5.—Human teeth, showing a section of left lower jaw, development and structure of the teeth.....	4 50

(B.) MODELS, NATURAL SIZE.

5715	No. 6.—Human brain:	
	<i>a.</i> Upper view.....	\$ 4 00
	<i>b.</i> Under view.....	4 00
	<i>c.</i> Vertical section from front to back.....	4 00
	<i>d.</i> Horizontal section, showing the cavities.....	4 00
	<i>e.</i> Skull, the brains to be taken into sections.....	14 00
5716	No. 7.—Human head, with part of the neck, various sections:	
	<i>a.</i> Outer view, showing the muscles, bloodvessels and nerves.....	7 25
	<i>b.</i> Inner view, showing the cavity partially opened, position of the eye, the upper and lower jaw..	7 25
	<i>c.</i> Sections showing the brain and the cavity of the nose, mouth, larynx and pharynx.....	7 25

FIG.

- 5717 No. 8.—Human Lungs, Heart and Larynx:
a. Anterior view of the lungs and heart, the pericardium being laid open; the anterior portion of the left lung is removed in order to show the bronchial ramifications.....\$ 4 50
b. Posterior view of the lungs and heart with a representation of the bronchial ramifications, air cells and bloodvessels..... 4 50
- 5718 No. 9.—The organs of respiration. Air passages, lungs and heart: The anterior part of both lungs, with the heart, can be taken off, laying open the ramifications of the windpipe within the lungs, the connections of the pulmonary bloodvessels with the heart..... 14 00
- 5719 No. 10.—Human Larynx:
a. Larynx, front view, with hyoidean bone and thyroid gland..... 3 50
b. Back view, showing the glottis and its ligaments.. 3 50
c. Larynx, in connection with the lungs and pharynx, open behind..... 4 50
- 5720 No. 11.—Human joints, laid open with their bones and ligaments:
a. Shoulder.....\$3 00 *e.* Hip, open..... 3 50
b. Elbow, front view 3 00 *f.* Knee, open..... 3 50
c. Elbow, side view. 3 00 *g.* Foot..... 4 50
d. Wrist and hand.. 4 00
- 5721 No. 12.—Human Trunk (torso), with the viscera of the thorax and abdomen (lungs, liver and stomach to be removed) 35 00
- Charts. Cutter's (set of 10)..... 12 00

HUMAN OSTEOLOGY.

The cause in the difference in price of these preparations will be found to exist in the quality of the same, whether the bones contain in their extremity more or less grease, or none at all.

FIG.



5722 French Skeleton, Articulated, and Disarticulated.

- *5722 No. 1. Articulated Skeleton (Male or Female), \$40 00 to \$75 00
 5723 No. 2. Disarticulated Skeleton.... 30 00 to 40 00
 5724 No. 3. Skeleton, articulated according to Beauchene, with support..... 300 00
- *5725 No. 4. Disarticulated Skull (in box with compartments)..... 12 00 to 18 00
- *5726 No. 5. Skull, with teeth, lower jaw fastened by elastic wire 6 50 to 9 00
- *5727 No. 6. Skull, with one horizontal cut..... 9 50
- *5728 No. 7. Skull with one horizontal cut, and one vertical cut. 13 00
- *5729 No. 8. Skull, sawed into seven sections, exhibiting the sinues—the bones can be disarticulated, so as to show the middle and interior ear.... 30 00
- 5730 No. 9. Internal and Median Ear, with bloodvessels and nerves..... 32 00
- *5731 No. 10. Hands or feet, each..... 3 50
- 5732 No. 11. Arm, mounted according to Dr. Duchesne, for the demonstration of the action of the muscles, 55 00
- 5733 No. 12. Leg, the same 55 00
- 5734 No. 13. Male and female pelvis, with ligaments, each, 14 00 without ligaments 7 50
- 5735 No. 14. Fœtal Skulls..... 2 50
- 5736 No. 15. Fœtal and Embryo Skeletons (under glass shades) 18 00
- *5737 No. 16. Skull and Cross Bones..... 6 50
- *5738 No. 17. Spinal Column..... 6 00
- 5739 No. 18. Femurs..... 1 85

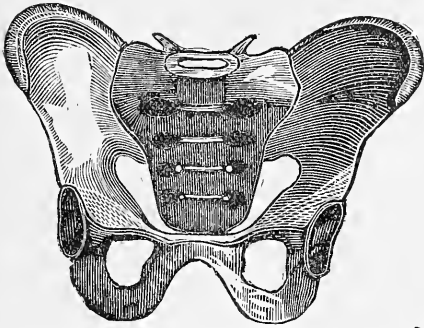


Fig. 5734—Female Pelvis, without Ligaments.

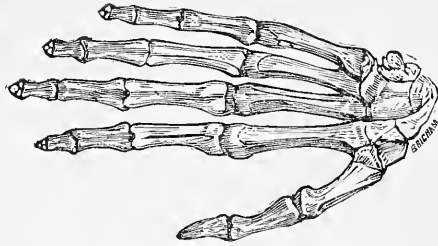


Fig. 5731—Hand, Strung on Catgut



Figs. 5725 to 5729—Skulls.

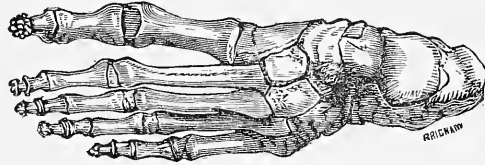
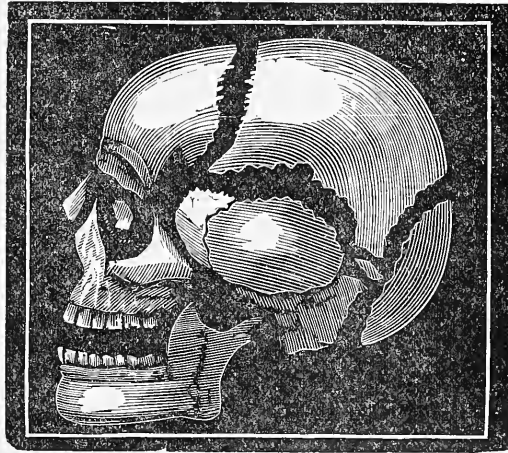


Fig. 5731—Foot, Strung on Catgut



Figs. 5725 to 5729—Separated Skulls, on Stands or in Boxes, divided into Compartments.



Fig. 5737—Skull and Cross Bones.



Fig. 5738—Spinal Column.



Fig. 5739—Femurs.

PHYSICIAN'S CABINET.

We desire to call attention to our new styles of Physician's Cabinet, as shown in cuts. It is a very tasty and convenient piece of furniture for office use, specially manufactured for the use of the gynecologist, surgeon, oculist, dentist, and the general practitioner. It comprises a desk top, five drawers, four revolving shelves, a towel rack, and a sliding table. The revolving shelves are so arranged when open, the operator has his instruments conveniently within reach. (See cut). Trimmings are in silver or brass (stylish patterns) mounted on boxwood casters. We make them in antique oak and solid walnut.

Height of cabinet, including desk top, to railing, 63 inches. Height of cabinet, without desk top, to railing, 40 inches. Width of cabinet, 28 inches. Depth of cabinet, 16 inches.

See next page for illustration of cabinet with desk top open; also prices of cabinets.



Fig. 5750—Cabinet, with desk top closed.



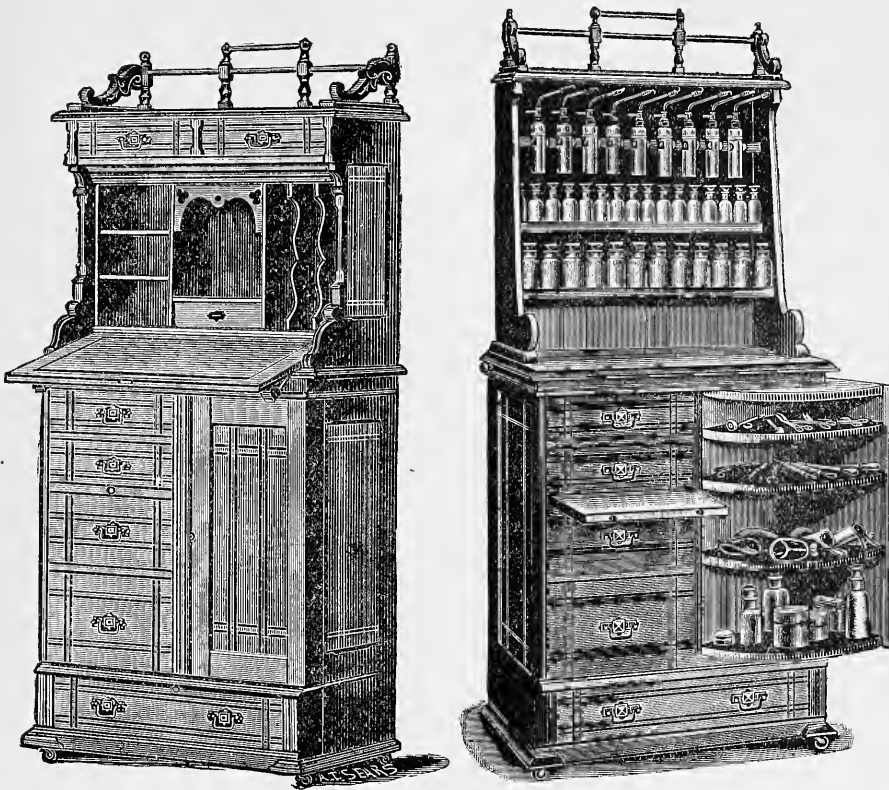


Fig. 5750—Cabinet with Desk Top—Open.

5752

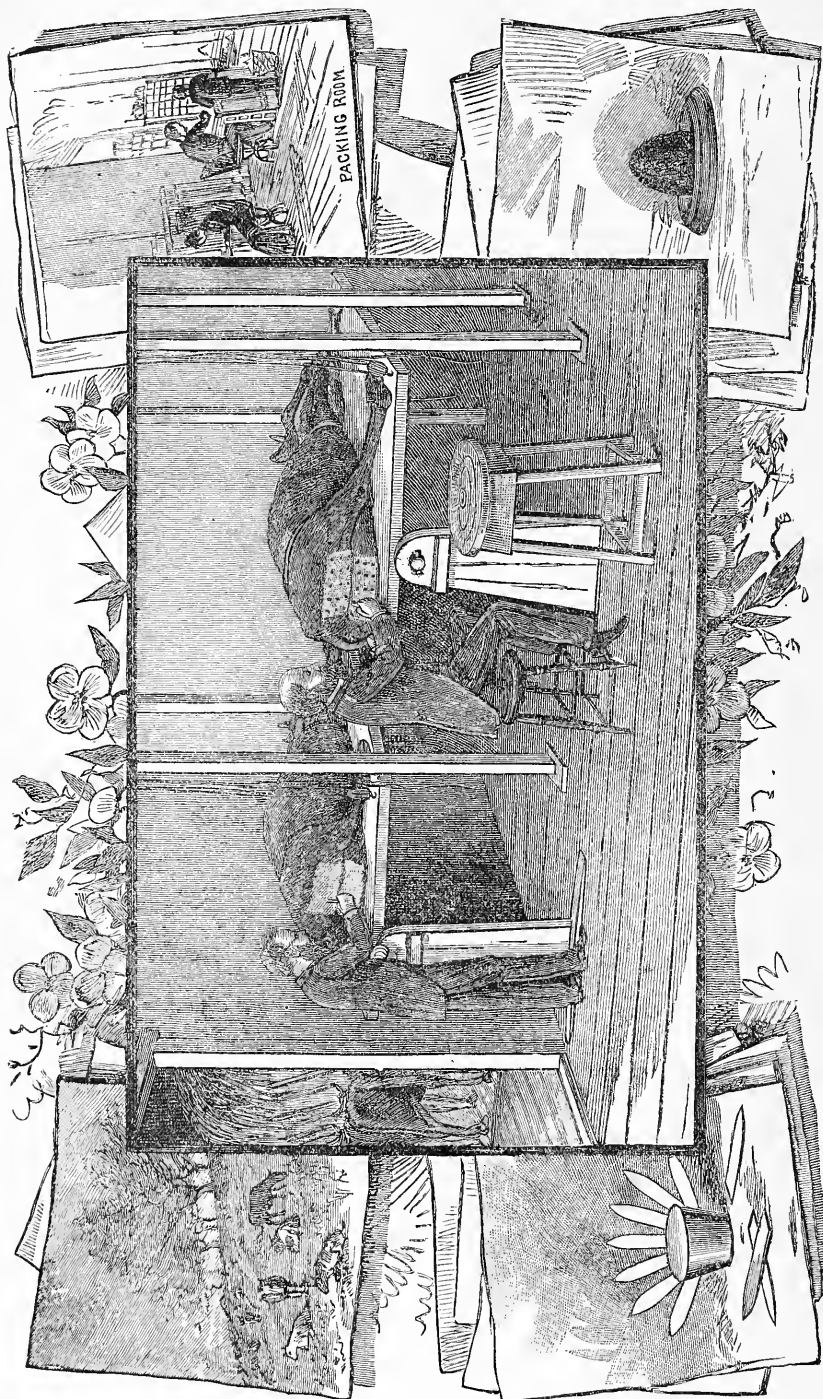
Fig. 5752—DR. JOHN EDWIN RHODES' IMPROVED OFFICE CABINET.

This is a handsome and convenient cabinet designed especially for laryngologist's use. It is finished in cherry, quarter-sawn oak, or black walnut. There are six drawers, the upper three being divided by partitions for mirrors, applicators, laryngoscope, and other necessary instruments used in treatment of diseases of the throat and nose. The swinging half of the cabinet has three shelves and is a convenient receptacle for instruments of any kind. The upper portion has been arranged for bottles and atomizers, and is furnished with the Davidson No. 66 Atomizer for office use. These, in connection with the Davidson "cut-off," are all that can be desired for spray producers. They are used with compressed air apparatus to advantage.

FIG.

*5750	Cabinet in Antique Oak or Solid Walnut, including desk top...	\$25 00
*5751	" " " " " " " "	15 00
*5752	Dr. John Edwin Rhodes' Cabinet in Antique Oak or Solid Walnut without bottles or tubes.....	25 00
5752-A	Same as above (5752) with 9 Davidson's No. 66 sprays, each held by nickel-plated clasp.....	36 50
5752-B	Same as above (5752-A) with 17 1 oz. Tincture bottles and 12 2 oz. Salt mouth bottles.....	38 00

NON-HUMANIZED VACCINE VIRUS.



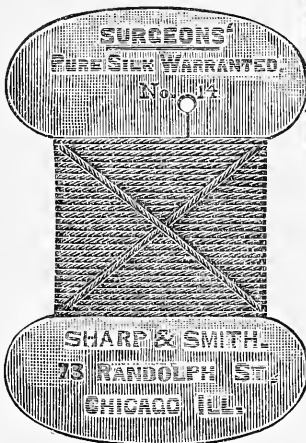
Ten Ivory Points, heavily charged.....\$1 00

LIGATURE SILK.

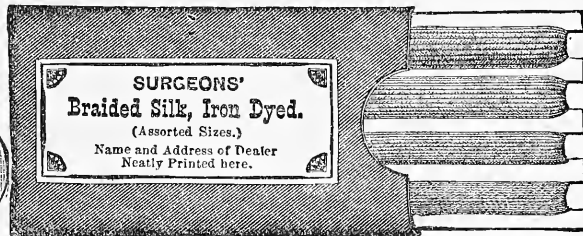
FIG.	Assorted, 3 sizes Carbolized (6 per cent.) White Braided Silk.....	per bottle	\$ 75
*5775	" 3 " " " " Iron Dyed Braided Silk....	" "	75
*5777	" 3 " " " " White Twisted Silk.....	" "	50
*5778	" 3 " " " " Iron Dyed Twisted Silk....	" "	50
*5779	" 3 " " " " White Braided Silk, (17 yds.,	" "	2 00
5780	" 4 " " Turner's Silk, White Braided.....	per reel	50
5781	" 4 " " S. & S. " " " " " " " " " "	" "	50
*5782	" 4 " " " " Iron Dyed.....	" "	50
*5783	" 4 " " " " White Twisted.....	" "	25
5784	" 4 " " " " Iron Dyed.....	" "	25
5785	Sharp & Smith's one Size White Braided Silk Tablets.....		30
5785	" " " " Iron Dyed Braided Silk Tablets..		30
5786	Turner's " " " White " " " " " "		30
5787	Sharp & Smith's " " Braided Silk, White or Iron Dyed, in skeins	per skein	15
5788	Morgan's (6 sizes) Assorted White Braided Silk on ivory Pins.....	per set	1 25
*5789	White Twisted Silk, single reels.....		10
5790	Iron Dyed Twisted Silk, single reels.....		10
5791	Cable Twist, in skeins.....	per skein	25
5792	Carbolized Kangaroo Tendons, in bottle.....		25
5793	Chinese Beaded Silk (very fine) for eye operations.....	per skein	25
5794	Knoll's Glass Reels for winding on silk, to be thrown into a solution.....		15
5795	Solid " Spools " " " " " " " " " "		05
5796	Hollow " " " " " " " " " " " "		05
5797	Hard Rubber Reels in Glass Tube, for silk or catgut, 3 reels, small.....		60
5798	" " " " " " " " " " " 3 " med.....		75
5799	" " " " " " " " " " " 3 " large.....		1 00
5800	S. & S.'s, Hard Rubber Reels in Glass Tube for silk or catgut, 3 reels....		1 25
5801	Hard Rubber Reels in Hard Rubber Tube, for silk or catgut, 6 reels, small.....		60
5802	" " " " " " " " " " " large.....		75

CATGUT LIGATURE.

*5803	Sharp & Smith's 3 sizes assorted Catgut in 6 per cent. carbolized solution, per bottle.	\$ 60
5804	S. & J.'s Catgut Ligature (in any solution) Nos. 0 and 1.....	" 30
5805	" " " " " " " " " " " 2, 3, 4.....	" 35
5806	" " " " " " " " " " " 3 Assorted sizes.....	" 50
5807	J. & J.'s " " " (8 feet, in any solution) Nos. 1, 2, 3, and 4....	" 25
5808	Schorse's " " " (10 feet), fine, med. and large.....	" 75
5809	Meyer's " " " 1 yard, 2 spools in each bottle.....	" 25
5810	" " " " 3 spools ass'd sizes " " " " " "	" 75
5811	" " " " 1 dozen skeins ass'd " " " " " "	1 00



5789



5782

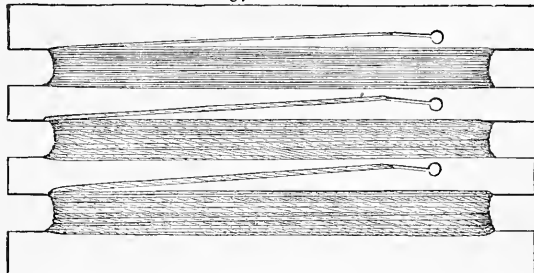
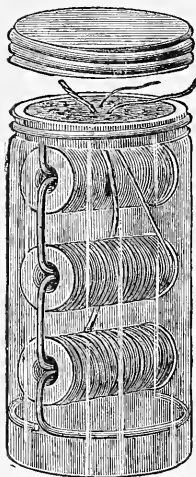


Fig. 5783-5. & S. White Twisted Silk, 4 sizes on card.

FIG.

RAW ANIMAL LIGATURE.

5812 Five yard Coils Raw Animal Ligature in 8 sizes per coil of each size from roc. to \$ 40
 5813 Elastic Ligature.....per string 25

SUPERIOR SURGICAL LIGATURES.

Put up on Glass Spools, three spools (assorted sizes), in a neat bottle, with a nickel-plated screw cap. The spools are so arranged, on a metal frame in the bottle, that the ligatures may be drawn out through the cork, as they are wanted for use. The cork, being elastic, closes tightly around the ligatures, thereby pressing all of the surplus solution out of them and back into the bottle. The metal frames are all coated or enameled, which fact renders them impervious to the solutions in which they are placed. This will be found a great improvement over the old way of putting up these goods.

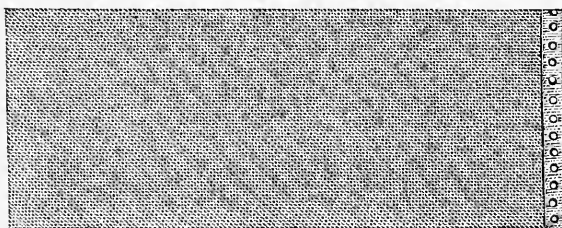
Three sizes in a bottle, on Glass Spools, with nickel-plated screw cap. Put up in plain or dry state, or in

Carbolized 6 per cent. Chromatized, 1 to 2,000, preserved in 5 per cent. carbolized solution. Sublimatized, 1 to 2,000, preserved in 5 per cent. of carbolized solution. Juniper oil, or any special solution desired.

5775 to 5779 and 5803.

THE FARNY SUTURE, FOR THE PAINLESS SEWING AND DRESSING OF WOUNDS, COMPRESSION OF SWELLINGS, TUMORS, Etc.

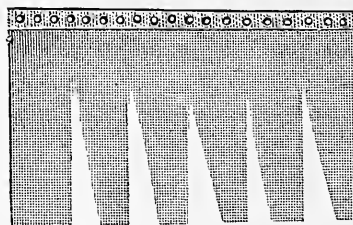
1



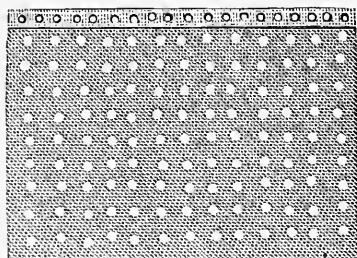
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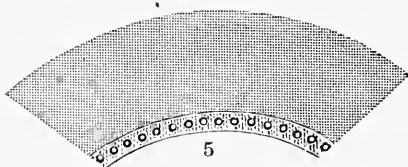
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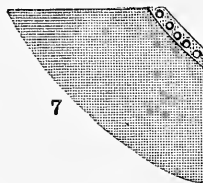
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5



7



6

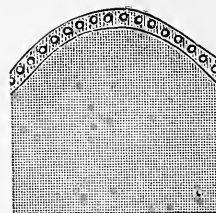


Fig 5823—1 to 7—Farny Suture.

THE FARNY SUTURE.

It consists mainly of a handy, ready made contrivance, composed of two pieces of strong fabric (coated with a non-irritating adhesive substance of great tenacity) and reinforced (eyelets) non-adhesive edge. These pieces, with the reinforced parts toward the wounds, are placed on both sides of it on the healthy skin, to which they lastingly adhere.

The reinforced edges prevent tearing or stretching of the suture and can be used in various ways, of which one of the best and easiest is illustrated in our sutures style No. 1, viz.: about one-quarter inch of the adhesive side of the plaster is turned over a wire or cord, back on itself (by this process the edge is rendered non-adhesive), and into this edge eyelets are let in or other fastening devices in different styles. The thread which in the ordinary suture was sewed through the flesh, will now be drawn through the eyelets and allows the operating surgeon to bring and keep the separated parts of the wound together with the utmost nicety, and with the additional advantages of

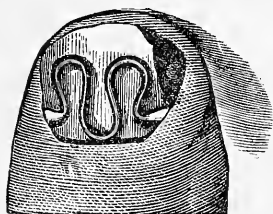
Saving labor to the surgeon;

Facilitating operations without causing pain to the patients, who for some reason or another cannot be brought under the influence of an anæsthetic;

Doing away with pain and irritation of suture during the process of healing, etc., etc.

The plaster itself is of the blandest, and without irritating properties, so that even after a prolonged application none, or only trifling inconvenience will be caused, which is far less than that caused by ordinary sutures. The plaster has such powerful adhesive properties that there is no danger of the suture becoming loose, provided a piece large enough to stand the strain is used. The sutures are made from either solid or perforated materials. The latter is preferred by many practitioners, as it allows a ready egress for perspiration.

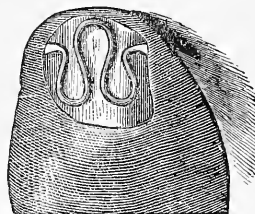
STEDMAN'S SILVER AUTOMATIC IN-GROWING TOE-NAIL CURE.



PATENTED NOV. 5th, 1872,

MARCH 25th, 1873.

Price.....25c. per pair.



This instrument gently lifts the inverted parts of the nail out of the flesh, affording immediate relief. It may be applied to any case; is worn with the shoe with perfect ease; and is a reliable, permanent, speedy and painless cure.

SHARP & SMITH,

Western Agents,

73 RANDOLPH STREET,

-

CHICAGO, ILL.

Miscellaneous and General Surgical Necessities.

FIG.		
5814	Pure Silver Wire, assorted sizes, from 18 to 32 Stubbs Gauge.....per coil	\$ 35
5815	Pure Silver Wire, 6 different sizes (1 yard each), on spools in case.....	1 50
5816	Pure Silver Wire, 6 different sizes (1 yard each), on spools in case.....per oz.	3 00
5817	Pure Copper Wire, silver plated.....per coil	25
5818	Iron Wire.....	10
5819	Lead Wire.....	20
5820	Silk Worm Gut, per doz. strings.....	20
5821	" " " " bunch.....	75
5822	Dr. Penny's Adjustable Elastic Adhesive Strips, 12 in each box.....each	50
*5823	Farny Suture, from 1 to 7 in box.....per box	1 50
*5823	" " " in one yard lengths.....per yard	1 00

(See preceding page for illustration of Farny Sutures.)

DRAINAGE TUBES AND TUBING.

5824	Decalcified Bone Drainage Tubes, assorted lengths....per inch	10
5825	" " " " 2 inches long, in bottle....	30
5826	" " " " 2 1/3 " " "	35
5827	" " " " 4 " " "	40
5828	" " " " 2 " " "each	25
5829	" " " " 2 1/2 " " " "	35
5830	" " " " 3 " " " "	40
5831	Andrews' Suction Drainage Tubes.....	75
5832	Purified Rubber " " 9 inches long.....each	10
*5833	Maroon " " 6 assorted sizes, in bottle 7 inches long.....per bottle	75
*5834	Pure Gum Rubber Drainage Tubing.....per yard	25

GROSS' GLASS ANTISEPTIC DRAINAGE TUBES.

*5835	Gross' Glass Drainage Tube, No. 1, 4 holes.....each	10
*5835	" " " " " 2, 4 " "	10
*5835	" " " " " 3, 5 " "	12
*5835	" " " " " 4, 6 " "	12
*5835	" " " " " 5, 7 " "	15
*5835	" " " " " 6, 8 " "	18
*5835	" " " " " 7, 9 " "	20
*5836	Pure Silver " " in any length.....per inch	15
*5837	Lister's Forceps for introducing Drainage Tubes.....	2 25

**ANTISEPTIC DRAINAGE TUBES.—Glass.**

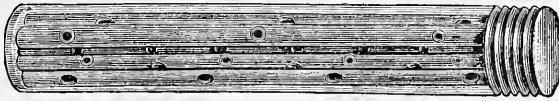
Made after Patterns furnished by Prof. S. W. Gross.

These Tubes have large holes, one-half inch apart, arranged alternately on opposite sides.

They are carefully finished, especial care being taken to make them smooth.

In addition to the drainage holes, each tube has at one end two smaller holes for the insertion of Safety Pin, through which it is prevented slipping into the wound. For other Drainage Tubes see Index.

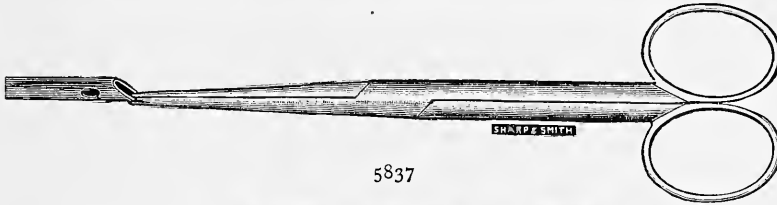
Miscellaneous and General Surgical Necessities.



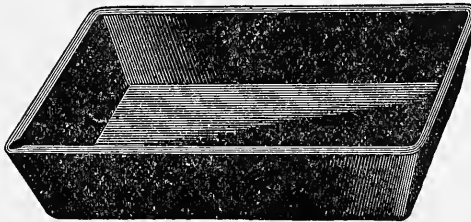
5833



5836



5837



5838

PAPIER MACHE INSTRUMENT TRAYS, FOR HOLDING ANTISEPTIC SOLUTION AND INSTRUMENTS.

Papier Mache is well known as an exceedingly tough substance, and articles made of it are almost indestructible.

This material is being used in Europe in the construction of photographic trays, and they are now offered for the first time in the United States as antiseptic trays for surgical operating instruments.

The trays are most desirable on account of their durability, and being finished with a hard and polished black surface, are thoroughly adapted for surgical and chemical purposes.

SIZE OF TRAYS.
(Inside Bottom).

PRICES.

FIG.	SIZE OF TRAYS. (Inside Bottom).		
*5838	12 1/4 x 10 1/4 inches	.....each	\$ 1 50
*5838	14 1/2 x 12 1/4	....."	2 00
*5838	16 1/2 x 20 1/2	....."	3 50
*5838	19 x 24	....."	5 50

We also have these in "Agate" Ironware (seamless, Fig. 5839) which are also indestructible. The "Agate" trays have "handles" for convenience in carrying.

*5839	14 inch	.....	\$ 80
*5839	15 "	.....	90
*5839	16 "	.....	1 00
*5839	17 "	.....	1 10
*5839	18 "	.....	1 25

FIG.

PURE LAMB'S WOOL.

5891	Plain Antiseptic Lamb's Wool, pound pkgs.....	\$ 2 00
5892	" " " " $\frac{1}{2}$ " "	1 00
5893	" " " " $\frac{1}{4}$ " "	50
5894	Binoidide of Mercury, 1-8000 Lamb's Wool, 1 pound pkgs.....	2 00
5895	" " " " $\frac{1}{2}$ " "	1 00
5896	Carbolated 1-8000 Lamb's Wool, $\frac{1}{4}$ pound pkgs.....	65
5897	Iodoform " " " $\frac{1}{4}$ " "	75
5898	Sublimated " " " $\frac{1}{4}$ " "	65

JUTE.

5899	Carbolized Jute, in 1 lb. tin boxes.....	\$ 30
5900	Plain "	20
5901	Tarred " in 1 lb. tin boxes.....	35
5902	Oakum.....	25

PROTECTIVES.

5903	Oiled Muslin.....	per yard\$ 50
5904	" Silk, 30 inches wide.....	" 95
5905	" " 28 " "	" 70
5906	Green Silk Protective Cloth.....	1 50
5907	Gutta Percha Tissue, best quality.....	" 50
5908	McIntosh Black Rubber Cloth.....	" 60
5909	" Pink " "	1 50

RUBBER SHEETING.

5910	Rubber Sheeting, white, $\frac{4}{4}$ yds.....	per yard\$ 75
5911	" " " $\frac{5}{4}$ "	" 1 00
5912	" " " $\frac{5}{4}$ "	" 1 25
5913	Unbleached Roller Bandages.....	
5914	One lb. Boxes, assorted.....	per lb. 1 00
5915	1 inch wide by 1 yard long, } For fingers and toes, and	1 00
5916	1 $\frac{1}{2}$ inches " 3 " " } hands and feet.	
5917	2 " " 3 " " } For forearms, arms, head	
5918	2 " " 8 " " } and legs of children.	
5919	2 $\frac{1}{2}$ " " 3 " " } For forearms, arms and	
5920	2 $\frac{1}{2}$ " " 8 " " } head of adults.	
5921	3 " " 4 " " } For lower extremities, cla-	
5922	3 " " 8 " " } vicle, etc., for adults.	
5923	3 $\frac{1}{2}$ " " 5 " " } For the body or trunk.	
5924	3 $\frac{1}{2}$ " " 8 " " }	
5925	4 " " 6 " " }	
5926	4 " " 8 " " }	

ANTISEPTIC GAUZE.

5927	S. & J.'s 10 per cent. Carbolized Gauze, 5 yard roll in can, per can\$	65
5928	" 5 " Iodoform " 5 " " " " " " " " " " " "	1 50
5929	" 10 " " " 5 " " " " " " " " " " " "	1 75
5930	" 1-2000 Corrosive Sublimate " 5 " " " " " " " " " " " "	60
5931	" 5 per cent. Hydronaphthol " 5 " " " " " " " " " " " "	1 00
5932	" 5 " Naph. " 5 " " " " " " " " " " " "	75
5933	J. & J.'s Carbolized " 5 " " " " " " " " " " " "	55
5934	" 10 per cent. Iodoform " 5 " " " " " " " " " " " "	1 10
5935	" Corrosive Sublimate " 5 " " " " " " " " " " " "	55
5936	Meyer's 10 per cent. Carbolized " 5 " " " " " " " " " " " "	55
5737	" 5 " " " 5 " " " " " " " " " " " "	50
5938	" 1-2000 Corrosive Sublimate " 5 " " " " " " " " " " " "	50
5939	" 5 per cent. Iodoform " 5 " " " " " " " " " " " "	1 25
5940	" 10 " " " 5 " " " " " " " " " " " "	1 25

FIG.

ANTISEPTIC GAUZE—Continued.

5941	Schorse's	5 per cent.	Carbolized Gauze; in 5 yd. rolls, per roll	\$	50
5942	"	10	" " " " " 5 " " "	"	55
5943	"	1-2000	Corrosive Sublimate " " 5 " " "	"	55
5944	"	5 per cent.	Iodoform " " 5 " " "	"	1 25
5945	"	10	" " " " " 5 " " "	"	1 25
5945	Lister's	1-1000	Corrosive Sublimate " " 5 " " "	"	60
5946	"		Carbolized " " 5 " " "	"	60
5947	"		Iodoform " " 5 " " "	"	1 10
5948	25 Yard		Rolls Plain Absorbent " " " " " "	"	1 25
5949	25	"	" Corrosive Sublimate " " " " " "	"	1 50
5950	25	"	" Carbolized " " " " " "	"	1 50

BEST WHITE MUSLIN BANDAGES.

5951	in.x1	yard	Best White Muslin Bandages.....per doz	\$	10
5952	1	in.x3	" " " " " " " " " "	"	35
5953	2	in.x3	" " " " " " " " " "	"	45
5954	2	in.x8	" " " " " " " " " "	"	1 00
5955	2 1/2	in.x3	" " " " " " " " " "	"	65
5956	2 1/2	in.x8	" " " " " " " " " "	"	1 50
5957	3	in.x4	" " " " " " " " " "	"	90
5958	3	in.x8	" " " " " " " " " "	"	1 30
5959	3 1/2	in.x5	" " " " " " " " " "	"	1 70
5960	3 1/2	in.x8	" " " " " " " " " "	"	1 80
5961	4	in.x6	" " " " " " " " " "	"	1 70
5962	4	in.x8	" " " " " " " " " "	"	2 25

WHITE OR RED FLANNEL BANDAGES.

5963	1 1/2	in.x3	Yards White or Red Flannel Bandages.....per doz.	\$	1 25
5964	2	in.x3	" " " " " " " " " "	"	1 50
5965	2	in.x8	" " " " " " " " " "	"	3 75
5966	2 1/2	in.x3	" " " " " " " " " "	"	1 75
5967	2 1/2	in.x8	" " " " " " " " " "	"	4 45
5968	3	in.x4	" " " " " " " " " "	"	3 00
5969	3	in.x8	" " " " " " " " " "	"	5 00
5970	3 1/2	in.x5	" " " " " " " " " "	"	4 00
5971	3 1/2	in.x8	" " " " " " " " " "	"	5 50
5972	4	in.x6	" " " " " " " " " "	"	5 00

PLASTER PARIS BANDAGES.

5973	1	in.x3	Yards Best Plaster Paris Bandages.....per doz.	\$	70
5974	1 1/2	in.x3	" " " " " " " " " "	"	75
5975	1 1/2	in.x5	" " " " " " " " " "	"	1 00
5976	2	in.x3	" " " " " " " " " "	"	90
5977	2	in.x6	" " " " " " " " " "	"	1 25
5978	2 1/2	in.x3	" " " " " " " " " "	"	95
5979	2 1/2	in.x6	" " " " " " " " " "	"	1 40
5980	3	in.x3	" " " " " " " " " "	"	1 00
5981	3	in.x6	" " " " " " " " " "	"	1 50

PHYSICIAN'S SOAP.

5982	5 per cent.	Boracic Acid Soap, in tin boxes.....each	\$	25
5983	5	" Salicylic Acid " " " " " "	"	25
5984	1	" Hydronaphthol " " " " " "	"	25
5985	5	" " " " " " " " " "	"	25

ANTISEPTIC TABLETS.

5986	Corrosive Sublimate Tablets, 25	in bottle.....per bottle	\$	25
5987	"	" 50 " " " " " "	"	40
5988	Hydronaphthol	" 100 " " " " " "	"	35

ANTISEPTIC TABLETS—Continued.

FIG.					
5989	Sponges, Antiseptic.....	small	doz., \$1 00 to	1 50	
5990	“ “	med.	“ 2 00 to	3 50	
5991	“ “	large	“ 4 00 to	7 50	
5992	“ “ flat for Ovarian Surgery....		1 00 to	2 50	
5993	“ “ “ “ “ “		60 to	2 00	
5994	“ Antiseptic ($\frac{1}{4}$ doz.) in jar		per jar	05	
5995	Spongio Pilene, 36 inches wide.....		per yard	5 00	

Fig. 5996—THE SEABURY ACCIDENT CASE—\$4 00.



Case Closed.

Size of Case closed $8\frac{3}{4}$ x $5\frac{3}{4}$ x $3\frac{3}{4}$ inches.

to enable the surgeon who may be at hand to dress injuries promptly and safely, without incurring the dangers of delays necessary to procure these appliances from his office or from hospitals or drugstores, or in the removal of the injured to hospitals or elsewhere, before their wounds can be dressed.

The contents of the case are: 1 yard Oil Paper; $\frac{1}{4}$ dozen Cotton Roller Bandages, 3 inch; $\frac{1}{4}$ dozen Cotton Roller Bandages, 2 inch; $\frac{1}{4}$ dozen Cotton Roller Bandages, 1 inch; 1 oz. Absorbent Cotton; 1 oz. Absorbent Lint; 1 Rubber Bandage, Esmarch; 1 Box Silk and Wax; 1 Sponge, Antiseptic; 1 Package Pins, pyramid; $\frac{1}{2}$ inch Spool Mead's Adhesive Plaster; $\frac{1}{2}$ inch Salicy. Isinglass Plaster; 1 oz. Hydronaphthol; 1 Bottle Catgut Ligature; 1 oz. Crystal Carbolic Acid; 1 oz. Liquid Ammonia; 1 oz. Bi-Carb. Soda; 1 Pair Scissors; 1 Pair Forceps; 1 Needle Straight; 1 Needle half curved; 1 Needle full curved; 1 oz. Styptic Cotton; $\frac{1}{2}$ doz. Safety Pins.

Around the sides and ends, and inside the cover, are printed intelligent and simple directions, which can be understood by any one, as to the use of the contents in various emergencies. These will enable even those unfamiliar with the dressing of wounds, to promptly afford relief to injured persons and to prepare them for comfortable removal to the hospital or elsewhere, where they may be placed under the care of a surgeon, or to relieve their distress until a surgeon arrives.

On the bottom of the case is a complete list of poisons and their antidotes, with directions for administering the latter. The antidotes are all chosen from those readily obtainable, and this feature of the case alone should be sufficient to commend it for use in every household.

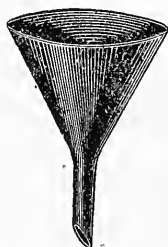
The Seabury Accident Case, one view of which is presented above, is designed largely as an accessory in rendering that "First Aid to the Injured," in which the medical profession so willingly encourage laymen, as a means of relieving suffering, and even saving lives imperiled by accident. At the same time, it contains a complete outfit for all ordinary surgical cases, sufficient, at least,

MISCELLANEOUS GOODS.

FIG.			
*6000	Baunscheidt Instrument.....	\$	1 85
6001	" Oil.....(per bottle)	1	35
6002	Minim Graduates.....	each	25
6003	One and two drachm Graduates.....	"	15
6003	" ounce ".....	"	15
6003	Two " ".....	"	20
6003	Four " ".....	"	30
6003	Eight " ".....	"	40
6004	Glass Mortars and Pestles, from.....	25c. to	1 00
*6005	Wedgewood Mortars and Pestles, from.....	40c. to	3 50
*6006	Specimen or Museum Jars, one pint.....		50
*6006	" " " one quart.....		75
*6006	" " " half gallons.....	1	00
*6006	" " " gallon.....	1	50
*6006	" " " two gallon.....	2	00
*6007	Screw Neck Tube Vials, with nickel plated tops, per doz.,	25c. to	50
*6008	Papier Maché, in funnels, plain.....	each 20c. to	95
*6009	" " " with ridges.....	" 25c. to	1 00
6010	Glass Funnel.....	" 10c. to	35
6011	" Feeding Dishes.....	per doz.	3 00



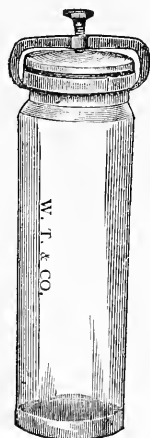
6000



6008—Plain.



6009—With Ridges.



6006



6007



6005

SUPPLEMENT.

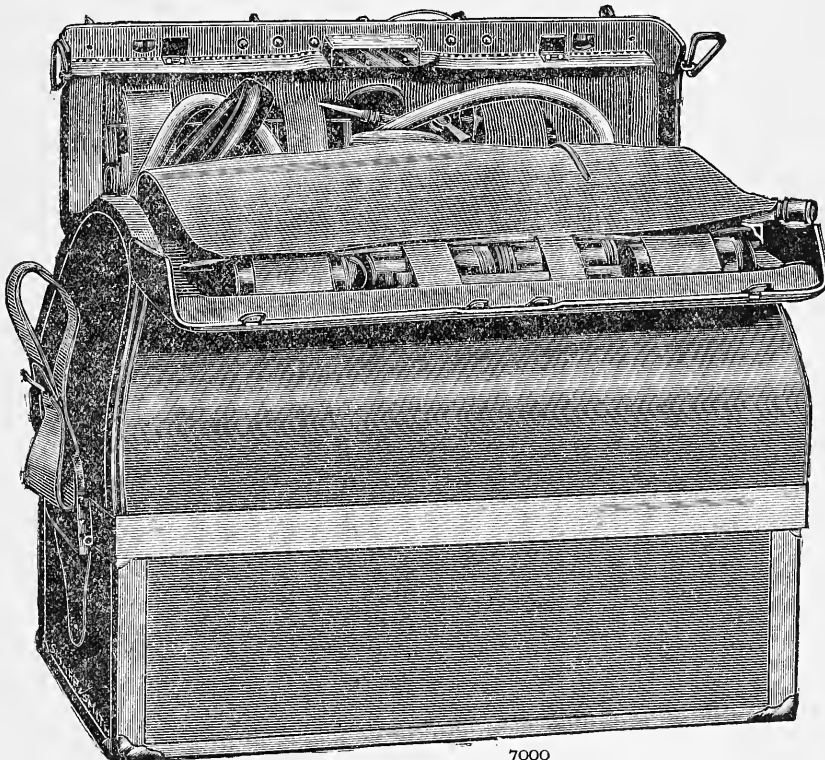
Prices in this whole Catalogue Strictly Net, except where otherwise stated.

MISCELLANEOUS INSTRUMENTS—General Operating.

Fig. 7000. Dr. Ap Morgan Vance's (Louisville, Ky.) Complete Emergency Operating Case, contains a more complete line of instruments, dressings, etc., than any one case yet put up. The lower half of the case contains the steel instruments, knives, forceps, etc., blocked in four wooden trays (see Figs. 7001, 7002, 7003 and 7004). These wooden trays fit snugly into hard rubber trays, which are used during an operation to hold solution and instruments (as shown in Fig. 7004). These trays are $16\frac{1}{8}$ inches long, $9\frac{7}{8}$ inches wide, and $1\frac{3}{8}$ inches deep.

These set of trays in case can be separated from the upper part of the case. The upper part of case contains the surgical dressings, medicines, and *all necessities* of an "Emergency Case."

See following pages for description.



7000

See pages 276 to 286 for other Operating Cases.

MISCELLANEOUS INSTRUMENTS—General Operating.



Fig. 7000.—Dr. Ap Morgan Vance's Emergency Case—Closed.

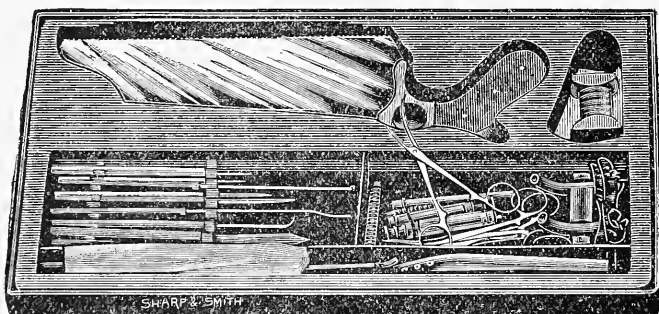


Fig. 7001.—Tray for Dr. Vance's Case containing Capital Saw, Needles, Silk and Artery Instruments.

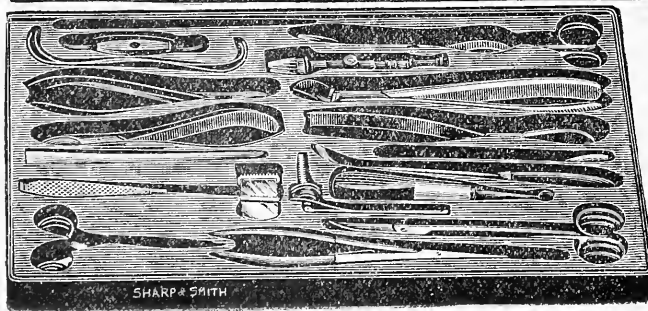
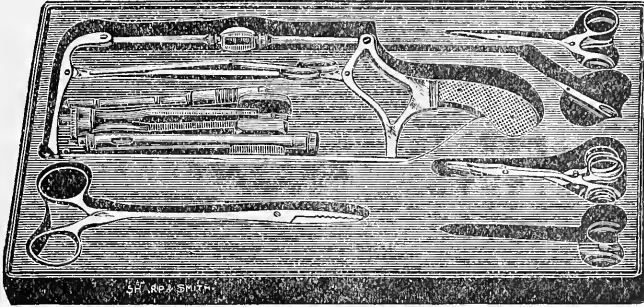


Fig. 7002.—Tray for Dr. Vance's Case containing Trephining and Necroses Instruments.

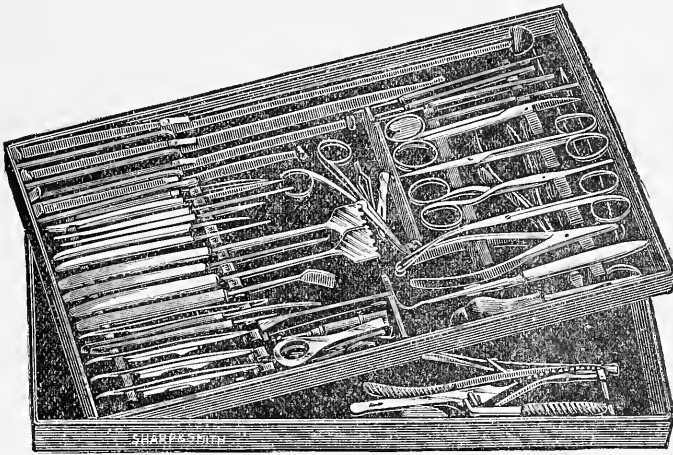
See pages 276 to 286
for other Operating
Cases.

MISCELLANEOUS INSTRUMENTS—General Operating.



7003

Fig. 7003.—Tray for Dr. Vance's case containing Bow saw and Hæmostatic Forceps and Instruments.



7004

Fig. 7004.—Showing Wooden Tray, also Hard Rubber Tray, which holds the Wooden Trays, holding amputating Knives, Forceps, Scissors and a general assortment of Instruments.

This case complete contains over 200 instruments. We do not furnish list of contents herewith because these cases are generally put up according to each doctor's selection, adding whatever instruments he may have on hand. Dr. Vance's capital idea is what we desire most to call attention to. All instruments are with smooth Metal Handles thereby aseptic, and are blocked in oiled "Hard Wood" which prevents the instruments from rusting.

See pages 276 to 286 for other Operating Cases.

MISCELLANEOUS INSTRUMENTS—General Operating.

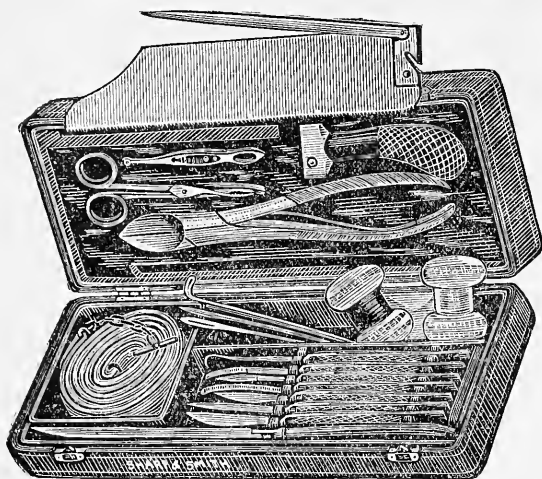


Fig. 7005—Compact Operating Set.

Fig. 7005.— Compact Operating Set (New). Contains :

Amputating Saw, pair Bone Forceps with Spring, Spring Catch Artery Forceps, Bulldog pattern, pair Plain Dressing Forceps, pair Curved Scissors, Es-march's Tourniquet, Med. Amputating Knife, two Amputating Scalpels, Straight Bistoury, Curved Sharp Bistoury, Peters' Hernia Knife, Tenotomy Knife, Tenaculum, pair Silver Probes, Needles, Silver Wire, Aneurism Needle and Director. Put up in a velvet-lined Morocco covered case, $11 \times 4 \frac{1}{4} \times 2 \frac{1}{4}$.

Price\$21 00

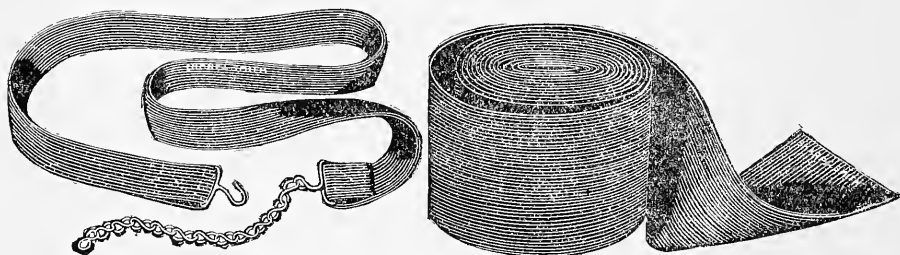
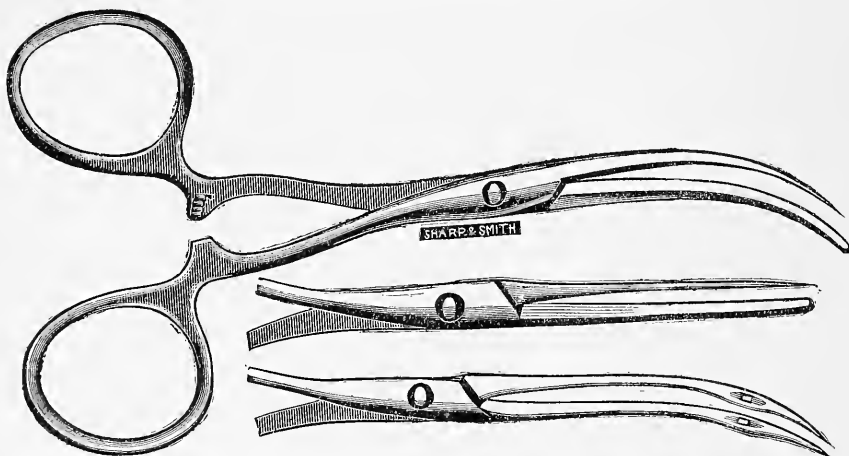


Fig. 7006—Esmarch's Tourniquet, with 3 yards Red Webbing.

(See Fig. 1194, page 308, for manner of Application).



Figs. 7007, 7008 and 7009—Allis' Haemostatic Forceps, with Scissor Handles.

See pages 276 to 332 for other General Operating Instruments.

MISCELLANEOUS INSTRUMENTS—General Operating.

FIG.		
*7005	Compact Operating Case.....	\$21 00
*7006	Esmarch's Tourniquet with 3 yards Webbing.....	2 60
*7007	Allis' Acupressure Forceps, curved.....	2 25
*7008	" " " straight.....	2 25
*7009	" Suture " curved.....	2 25
*7010	Dr. Henry Flood's Anæsthetic Inhaler.....	7 50

[Extract from the Medical Record, June 8, 1889.]

NEW ANÆSTHETIC INHALER, BY HENRY FLOOD, M. D., ELMIRA, N. Y.

The inhaler consists of two parts, a cone and bottle to hold the anæsthetic.

The cone is made of a soft rubber ring, five inches in diameter. The rubber ring is soft, and will not injure or be uncomfortable for the patient. It is pliable enough when slight pressure is used, to adapt itself to the contour of the face.

To the rubber ring four steel wires are fastened, equal distances apart. The wires are five and one-half inches long. The other ends of these are soldered in a metal ring which is three-quarters of an inch in diameter. The metal ring makes the apex of the cone. This forms a spring frame, that always takes the form of a cone. If the cone is pressed together, as if caught by a patient, as soon as the pressure is removed the frame springs back into shape.

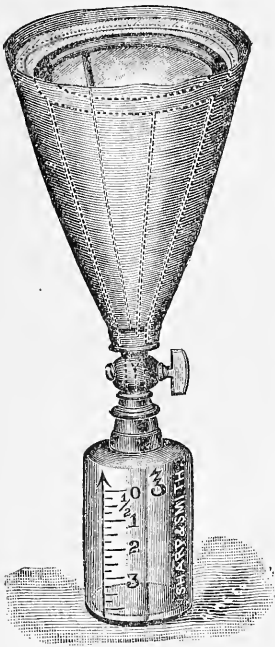
It requires only a minute or two to pin a towel around the frame, which should be done with safety pins, or, what is more convenient, I have made a hood of toweling which fits the cone. The hood is easily pulled over the frame and pinned at the base of the cone.

To prevent air passing through the meshes of the toweling there is a second hood made of soft rubber cloth. The rubber hood is pulled over the toweling. The rubber hood is longer than the cone, leaving a free border of an inch or more which lies on the face. During inspiration the rubber cloth acts as a valve and prevents air from rushing under the cone. When the cone and rubber hood are pressed tightly to the face, air can be entirely excluded from the cone. If air is wanted pull up the rubber hood, and it will pass through the meshes of the toweling.

The ring at the apex of the cone has threads cut into it to screw the cork of the anæsthetic bottle into the cone. The metal cork also screws into the anæsthetic bottle. The metal cork has a stopcock to turn off or on the anæsthetic. Through the cork are two holes which pass through the bottle-end and through the stopcock, where each of the two holes divides and turns so as to open at the lower edge of the cork, thus distributing the anæsthetic, which passes through the cork in four directions, and throws it inside of the cone against the toweling.

A small piece of absorbent cotton pushed into the apex of the cone, will prevent the anæsthetic from dripping into the patient's face.

The anæsthetic bottle holds four fluid ounces and is graduated so that at any time the amount of anæsthetic that has been used in the cone may be known. When the bottle becomes empty it is easily unscrewed, refilled and replaced without removing the cone from the face.



7010

MISCELLANEOUS GOODS—General Operating.

A NEW ANÆSTHETIC INHALER.—Continued from preceding page.

The inhaler is easily taken apart and cleaned, the soiled towel or hood is to be thrown aside to be washed, and a clean one is to take its place; the frame and bottle should be washed, and each part of the inhaler can be treated with an antiseptic fluid. This is a very important feature when practising antiseptic surgery, especially in operations about the face and neck.

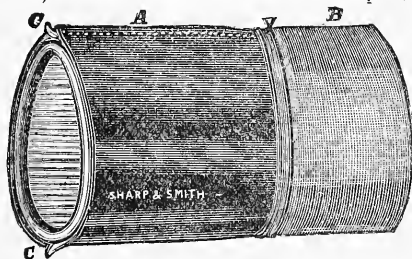
The anæsthetic can be given as rapidly or as slowly as desired. The stop-cock gives absolute control over the quantity put into the cone, and prevents a large amount of waste, requiring one-fourth to one-half as much as is generally used. I have produced complete anæsthesia with chloroform in less than three minutes, and with ether in from four to seven minutes. I have kept patients anæsthetized undergoing capital operations, for nearly an hour, using less than a fluid ounce of chloroform; and in severe and painful operations for forty-five minutes with less than four fluid ounces of ether.

[Extract from "The Medical Record," New York, May 11, 1889.]

A MODIFIED ALLIS' ETHER INHALER.

By JOSEPH W. EDDY, M. D., OSWEGO, N. Y.

After using a number of kinds of ether inhalers, I have come to the conclusion that the Allis inhaler is the best; there being no valves to get out of order, and the construction is simple; but I found that where it was needed for a



7011

number of patients, as in a railroad accident, it generally became too dirty in a short time to use, owing to the presence of saliva and vomited matter, and taking it apart to clean and put in a new cotton flannel bandage was very tedious and trying to the hands, especially in removing and putting on the rubber cap. In my modification the cotton flannel is not threaded through between the bars, but slipped over as the top comes off, and then in place of the rubber cap over the bars, I use a black patent leather jacket, over one end of which is slipped a rubber face piece, which has the end going over the patent leather jacket distended by a metal ring or band so that there is no trouble in introducing it over the jacket. Surgeons will find that this inhaler can be taken apart, and the bandage changed in few moments.



7012



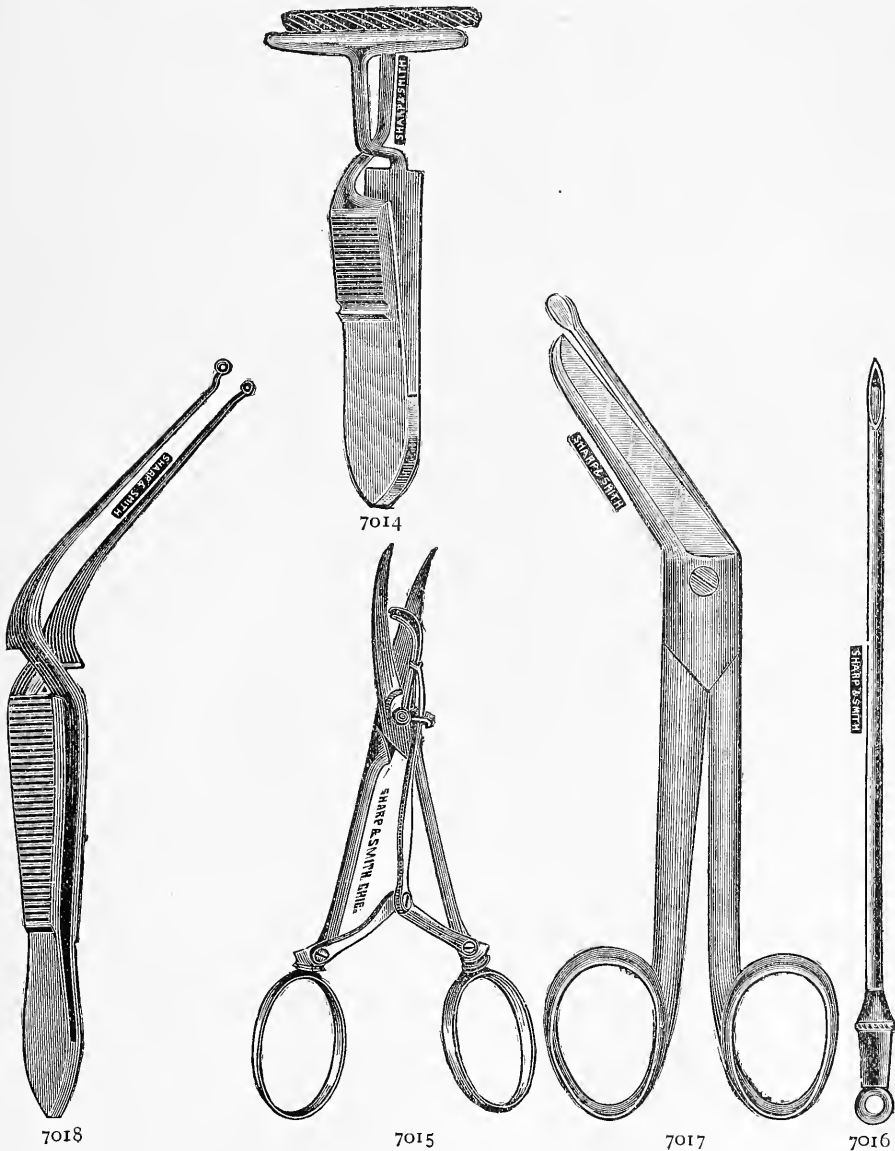
7013

See pages 276 to 332 for other General Operating Instruments.

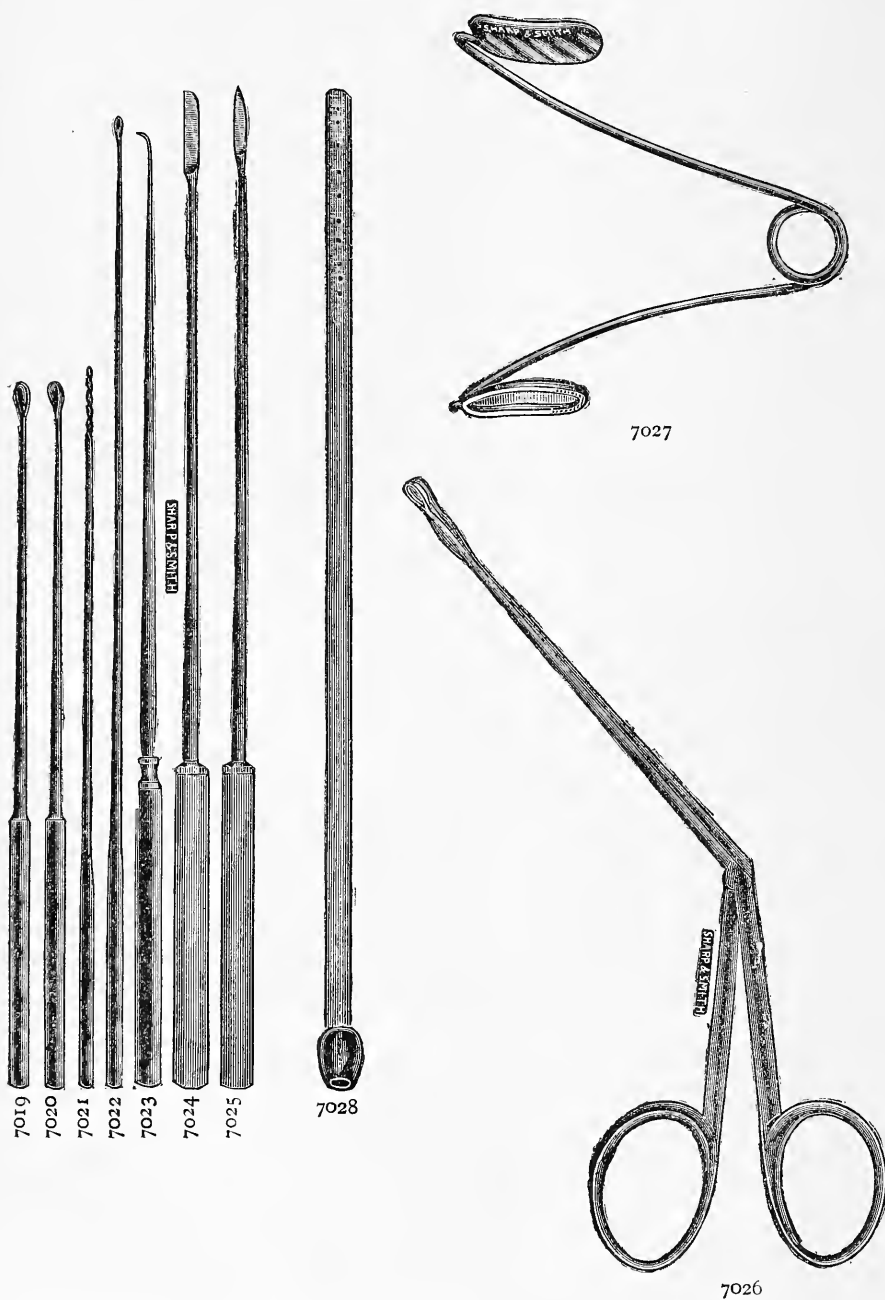
MISCELLANEOUS INSTRUMENTS.

FIG.

*7011	Dr. Jos. W. Eddy's Modified Allis Ether Inhaler.....	\$ 9 00
*7012	Dr. J. Suydam Knox's Perineum Needle.....	75
*7013	Single Reversible <i>all metal</i> Trocar for pocket.....	75
*7014	Dr. J. Frank's Cross Action Artery Clamp.....	2 00
*7015	Piffard's Skin Grafting Scissors.....	7 50
*7016	Long Embalming Needles (10½ in.).....	1 25
*7017	Dr. M. Spicker's Scissors for cutting bandages of any kind from the body.....	2 50



MISCELLANEOUS INSTRUMENTS—Ear and Nasal.



See pages 391 to 411 for other Ear Instruments.

See pages 412 to 476 for other Nasal Instruments.

MISCELLANEOUS INSTRUMENTS—Ear and Nasal.

<small>FIG.</small> *7018	Dr. F. C. Hotz' Curette Forceps for removing granulations from the Tympanic cavity (see page 905).....	\$ 4 50
*7019	Dr. F. C. Hotz' Ear Spoon, long, metal handle.....	50
*7020	“ “ Curette “ “ “	50
*7021	“ “ Cotton Carrier.....	50
*7022	“ “ Probe, flexible, pure silver.....	75
*7023	“ “ Tenaculum.....	60
*7024	“ Knife for operations on membrana tympani....	1 10
*7025	“ “ “ “ “ “ “	1 10
*7026	Durham's Fenestrated Ear Forceps.....	4 50

NASAL.

*7027	Smith's Nasal Speculum.....	\$ 1 25
*7028	Dr. P. Norman Bridges' Nasal Douche.....	1 50
*7029	Dr. Moreau R. Brown's “ Ecchondrotome.....	10 00

See pages 391 to 411 for other Ear instruments, and pages 412 to 446 for other Nasal instruments.

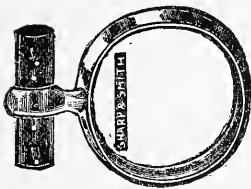
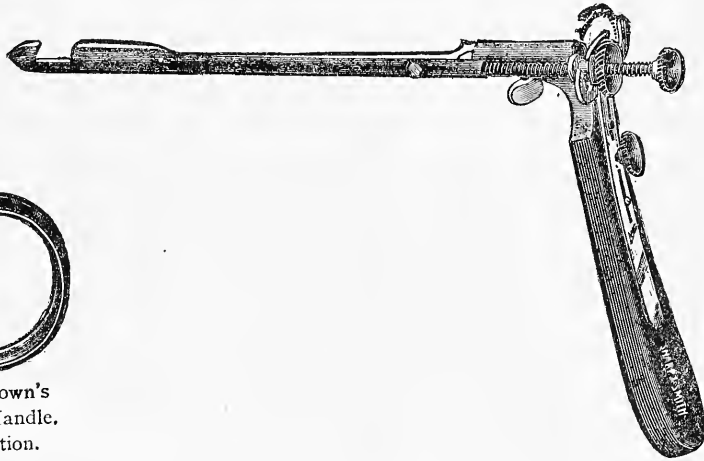


Fig. 7029-A—Brown's
Cautery Snare Handle.
Send for description.



7029

Fig. 7029.—DR. MOREAU R. BROWN'S NASAL ECCHONDROTOME.

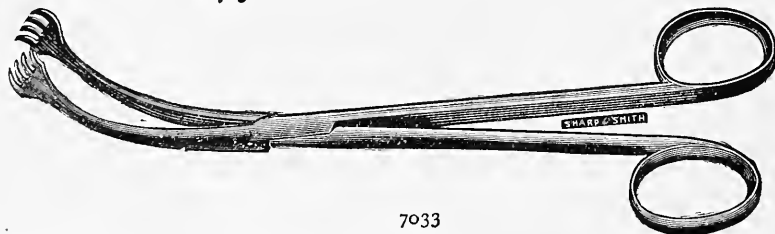
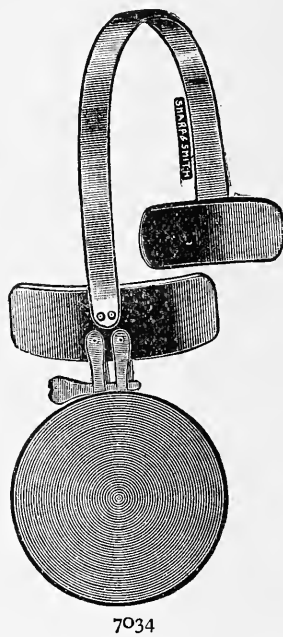
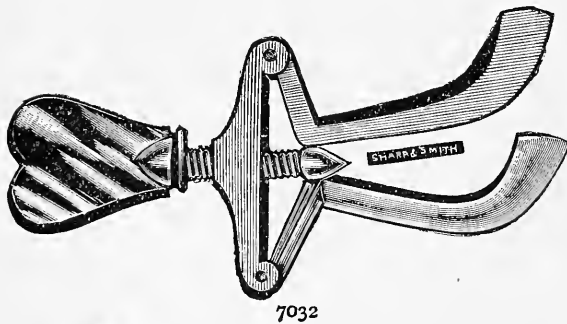
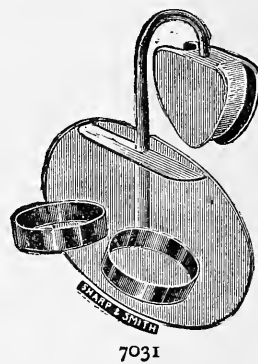
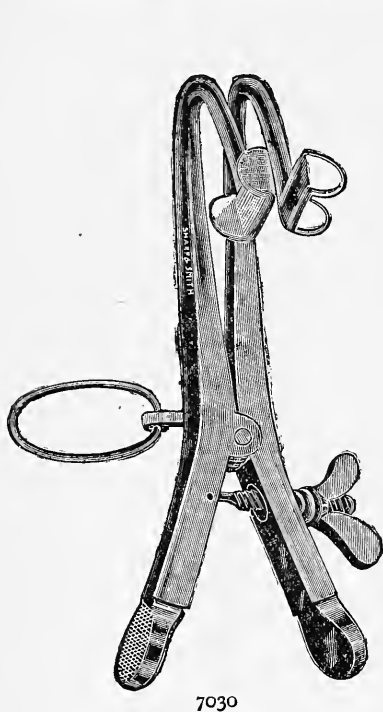
This instrument, intended to take the place of the saw, the chisel and the knife in many of the operations on the nasal septum, particularly for the removal of the various forms of the ecchondroses and the cancellous exostoses, consists of two blades, one of which is made fast to a handle by a set screw, while the other slides along the former, somewhat after the same manner of the blades of a Mackenzie tonsilotome.

The cutting edges of the two blades may be made to approximate each other rapidly by pushing the second or sliding blade with the thumb, or slowly by means of a screw; experience having demonstrated that to be a very advantageous arrangement.

The blades can be turned on their long axis so as to operate in either the left or right nasal cavity.

These instruments are made by Sharp & Smith,

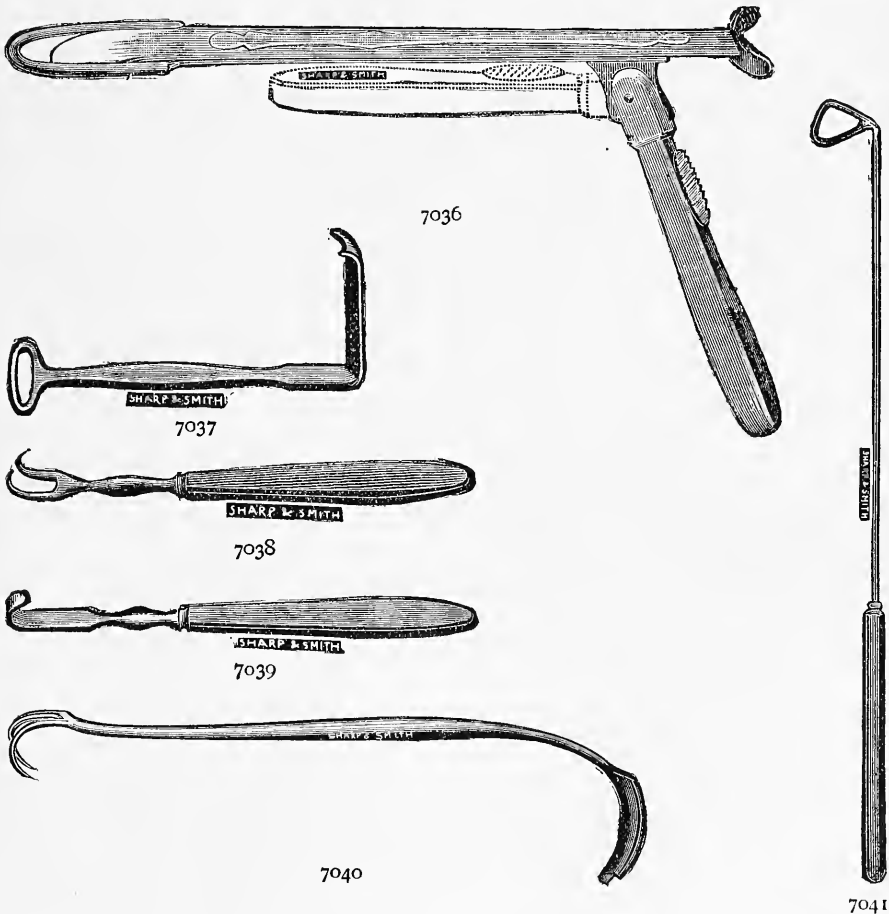
MISCELLANEOUS INSTRUMENTS—Mouth and Throat.



See pages 447 to 523 for other Mouth and Throat Instruments,

MISCELLANEOUS INSTRUMENTS—Mouth and Throat.

FIG.		
*7030	Allingham's Mouth Gag (Annandale's).....	\$ 5 25
*7031	Henrotin's " "	2 00
*7032	Fænger's " "	4 50
*7033	Dr. F. C. Hotz' Curved Tonsil Forceps.....	3 00
*7034	Worrell's Head Band Metal Spring to go <i>over</i> the Head. Price, without mirror.....	1 50
*7035	McCoy's Spiral Flexible Applicator.....	2 00
*7036	Bishop's Folding Handle Tonsilotome..	7 50
*7037	Gerster's long Trachea Retractor.....	1 50
*7038	" short, sharp Trachea Retractor.....	1 50
*7039	" " blunt " "	1 50
*7040	Pilcher's Suprasternal Retractor.....	2 00
*7041	Hindes' Palate Retractor....	75
7042	Esmarch's Tongue Holding Forceps.....	4 50
7043	House's " " "	4 50



See pages 447 to 523 for other Mouth and Throat Instruments.

INTUBATION.

FIG.
7044 Dr. A. E. Hoadley's Intubation Set..... \$25 00

Comprising :

- 1 O'Dwyer's Tube Introducer (2731, Fig. 2) Page 510.
1 " " Extractor (2734, " 4)
1 " " Scale (2733, Fig. 3) Page 510.
1 " " Gag (2730, " 1)
5 Hoadley's Intubation Tubes with Epiglottis.
7045 1 and 3. Hoadley's Intubation Tubes with Epiglottis, Gold Plated.....each 2 50

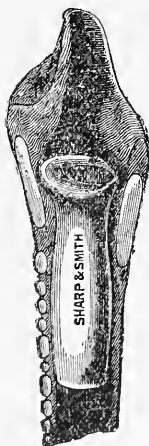
DEEP TUBING OF THE LARNYX AS A SUBSTITUTE FOR INTUBATION,

WITH A REPORT OF NINE CASES, AND PRESENTATION OF NEW INSTRUMENTS.

Read before the Chicago Medical Society, March 7, 1887, by Dr. A. E. Hoadley, M. D., Professor of Anatomy, Chicago College of Physicians and Surgeons, Professor of Surgery in the Chicago Policlinic, Etc.

In April, 1886, I became convinced that intubation of the larynx was a justifiable surgical procedure, and a valuable substitute for tracheotomy in selected cases. I therefore procured a set of the O'Dwyer instruments and tubes. Although I had handled the tubes, and seen them introduced, and a year previous had introduced them myself on the cadaver, I did not until this time give serious consideration to the position of the tube after the introduction. I had no difficulty in coming to a conclusion in this matter. From my knowledge of the larynx, and the contour of the head of the tube, I decided the head of the tube was designed to rest within the larynx, with its projecting flange resting upon the false vocal cords, with the straight part of the tube behind, resting against the posterior straight wall of the larynx (Fig. 1).

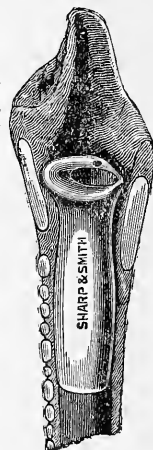
It is not until I had in this manner tubed five cases that I was informed that it was not the design of the inventor, Dr. O'Dwyer, to have the head of the tube rest within the larynx, but on the contrary to have the flange project laterally and posteriorly above the opening into the larynx, resting upon the arytenoid cartilages behind, and the aryteno-epiglottidian folds on each side, with the head of the tube in such a position that when the epiglottis is closed, it would come in direct contact with the tube, closing its orifice, but allowing its flange to project beneath it (Fig. 2). It now became necessary for me to either acknowledge my error and turn the tube around, or justify the position, and claim an improvement. I examined the five cases and was fully convinced that the deep position was at least worthy of further trial. I can now present a summary of nine cases which I have thus treated. Seven of the operations were performed for other physicians: for Drs. R. N. Hall, G. M. Emrick, E. E. Holroyd, W. Rittenhouse, and Caldwell. Two had been performed where there had been no physician in attendance until I was called, and found it necessary to tube immediately. I have not as yet had an opportunity of watching the patients as closely as I could desire, and from the main facts relative to the subsequent behavior of the patients I am indebted to the physician in attendance. Of the two cases above referred to, I saw one six hours after the operation. She was perfectly comfortable as far as breathing and wearing the tube were concerned. The other died twelve hours after the operation, before I saw her a second time.



7045—Fig. 1.
Deep Tubing.

The ages of the patients ranged from two to six years. All had diphtheritic laryngeal stenosis. They were all bad cases, and all died in from twenty-four hours to four days after the operation. The stenosis was promptly relieved in all. Eight out of the nine were able to drink several consecutive swallows immediately after the operation, and continue to do so as long as they could swallow. The eight suffered little or no pain from the presence of the tube, nor was the cough particularly troublesome. Four coughed but very little. In one, the presence of the tube in the larynx did not excite cough; on the contrary, there was less coughing than before the tube was introduced. In one case the tube was coughed out, and a larger tube was introduced, which remained until the child died from extension of the exudate below the tube. In no case was there subsequent obstruction above the tube. In one case the obstruction seemed to be in the fauces and pharynx, and I feared that tracheotomy would be necessary, but "deep tubing" gave prompt relief. In two cases, while pressing the tube down deep into the larynx, it was felt to slip by an obstruction and pass beyond reach. In these two cases I believe the head of the tube was lodged in the ventricle of the larynx, resting upon the true vocal cords.

(See pages 510 to 516 for other Intubation Apparatus.)



7045—Fig. 2.
Intubation.

There was no unusual inconvenience from the presence of the tube in this situation. I removed the tube in one of these cases, and I had as little difficulty as in any, which I think would be equally true had the child been living. I might state while giving this opinion, however, that I have never extracted a tube from the living subject.

One case suffered severe and continual pain from the presence of the tube, and could not drink one drop without strangling, and having a violent fit of coughing following the attempt. She was fed by means of a tube in the oesophagus. She died on the fourth day from pneumonia, the development of which was probably favored by the irritation of the tube. This was Olga L., a girl five years of age, a patient of Dr. Emrick's. About two years previous, she swallowed, by mistake, some concentrated lye, causing extensive destruction of the tissue, followed by violent inflammation. After a long and desperate struggle she recovered her general health; but there remained two almost impervious strictures of the oesophagus. She had been under my care six months for the surgical treatment of the strictures when she contracted diphtheria, for relief of which the "deep tubing" was practiced. It was to these changes in the pharynx and oesophagus caused by the lye that I attributed her intolerance of the laryngeal tube.

In comparing the two methods of introducing the tube, I would call attention to what I regard as the most objectionable feature of the O'Dwyer method. It is the projection of the head of the tube over the top of the larynx in such a manner that it prevents the glottis from folding down and adapting itself to the top of the larynx in the usual manner. This leaves a margin of laryngeal mucous membrane exposed which has been in the habit of being covered at every act of deglutition. The projections of the tube do not cover it perfectly, so that in every act of swallowing the food is allowed to come in contact with this surface, which is excessively sensitive to everything but air, and must necessarily excite coughing. I have no doubt but what the glottis will close the orifice of the tube perfectly, thus preventing any food from getting into the tube, but it cannot close the larynx by the side of the tube, and food, fluids especially, are forced into the larynx, thus causing the most distressing paroxysms of coughing at every attempt at swallowing. All this is obviated by the method that I have adopted, as the head of the tube is within the larynx and well below the opening, so that the glottis does not touch the tube, and can therefore perfectly guard the larynx.

In reference to the removal of the tube, it is my opinion that the tube can be more quickly engaged by the extractor while it rests within the larynx, than while the head of the tube rests above the larynx. The head of the tube being surrounded by the upper extremity of the larynx, greatly facilitates the operation, as it is not easy to get the extractor down by the side of the tube which is the source of the greatest annoyance with the tube in the high position. With reference to the danger of introducing the tube into the trachea, I would state that it is certainly a remote danger, as any one will admit that attempts to push the head of a well-fitting tube beyond the chink.

The modifications in the tube that have suggested themselves for the better adaptation of this mode of intubation, and which have been constructed for me by Sharp & Smith, of Chicago, are:

Shortening the tube to the length of the larynx, or perhaps a trifle longer. (Figs. 1 and 3).

Making the head of the tube conform more nearly to the shape of the interior of the upper part of the larynx.

Making the upper surface of the head of the tube slightly cup-shaped for the purpose of favoring the introduction of the extractor.

Having that portion of the posterior border of the tube, which corresponds to the arytenoid cartilages, stand on a plane anterior to that of the rest of the tube, so that the pressure at this point may be slight. As the arytenoids are supported by muscles, we should avoid putting them on the stretch, constructing the obturator so that it will project three-eighths of an inch from the lower end. My tube, being a little shorter than the most convenient length for introduction, the longer tip of the obturator enables one to pass the tip to the proper position below the chink, when the tube should be detached, and pressed home with finger before the obturator is withdrawn.

The greatest objection to using the tubes of the present construction for "deep tubing" is their length. The O'Dwyer tubes (Fig. 4) when placed deep in the larynx will reach to the seventh ring of the trachea, as shown by an autopsy. This, owing to the mobility of the lower end of the tube in the trachea in the varying positions of the neck, is a source of irritation exciting cough, and inducing pain. One of my patients would invariably point to that locality when asked to locate the tube. I am now, however, having my tubes made a trifle longer than shown in cut.

Finally, I would recommend "deep tubing" of the larynx as being preferable to "intubation," even though the long tubes are used, holding that long tubes are preferable only in very exceptional cases.

No. 683 WASHINGTON BOULEVARD, CHICAGO, ILL.



7045

Fig. 3. trachea in the varying positions of the neck, is a source of irritation exciting cough, and inducing pain. One of my patients would invariably point to that locality when asked to locate the tube. I am now, however, having my tubes made a trifle longer than shown in cut.



7045

Fig. 4.

MISCELLANEOUS INSTRUMENTS—Mouth and Throat.

FIG.		
*7046	Powell's Modification of Camman's Stethoscope.....	\$2 25
*7047	Burrows' Trachea Dilator.....	2 00
*7048	Faenger's Tongue Holding Forceps.....	4 00

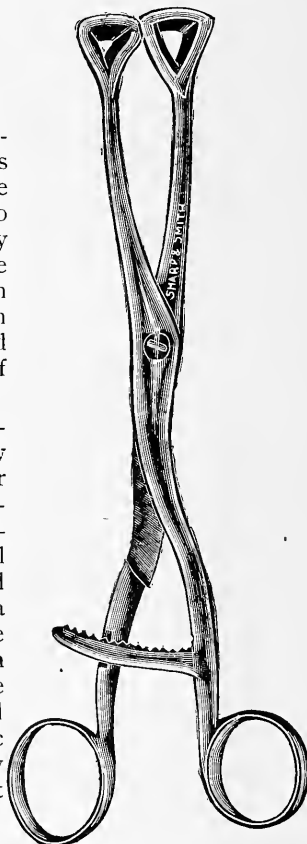


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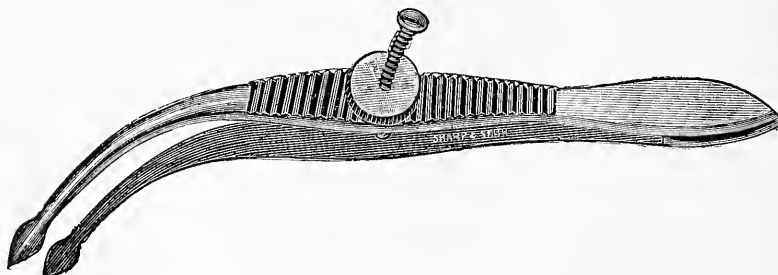
POWELL-CAMMAN'S STETHOSCOPE.

A simple, useful and durable combination of Powell's and Camman's Stethoscope has been attained, and will no doubt be found serviceable by the medical profession. The price is such that it is within the reach of all. The suction bulb is placed centrally, and forms a permanent part of the instrument.

In applying the stethoscope, the bulb is slightly compressed, the hard rubber part is placed wherever desired; when the bulb is allowed to assume its normal shape, the hard rubber bell will adhere to the skin, a vacuum being formed by the bulb exhausting the air from the circular chamber. The metal part is nickel plated and well finished; the elastic parts are made of best quality rubber. Every instrument warranted perfect.



7048

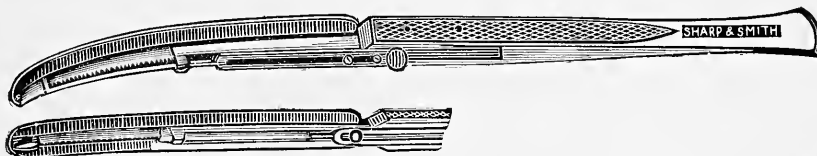


7047

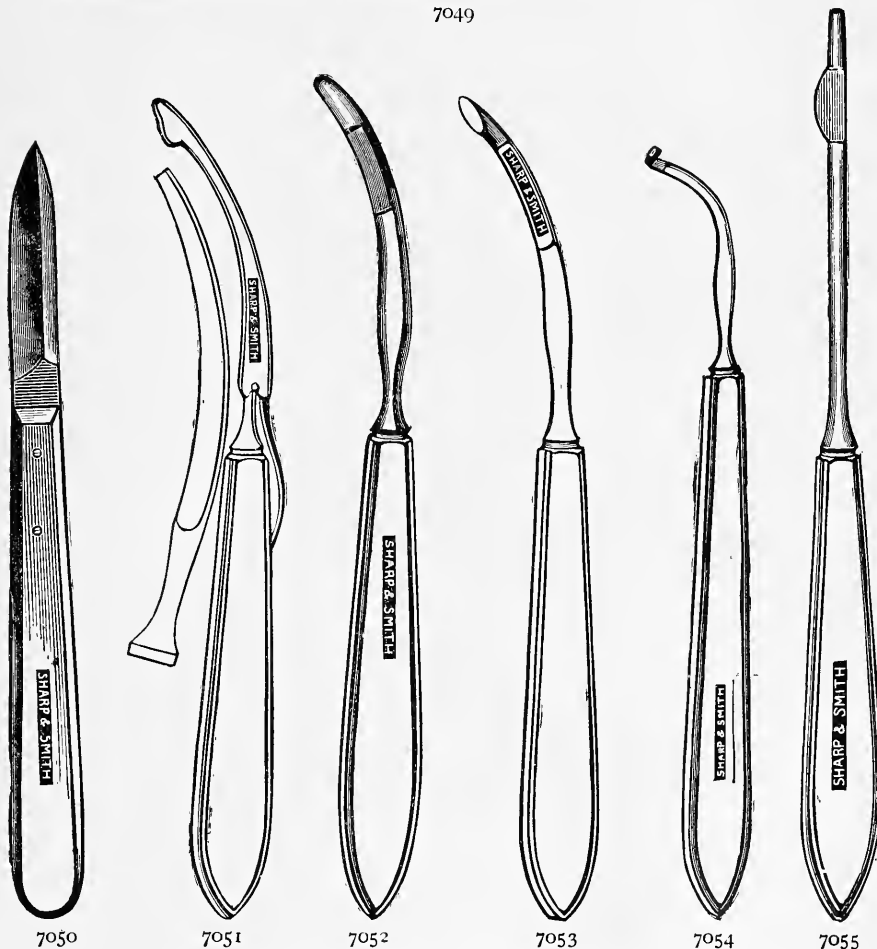
Prices in this entire Catalogue are strictly net, except where otherwise stated.

MISCELLANEOUS INSTRUMENTS—Hernia.

FIG.		
*7049	Guarded Herniatome.....	\$13 50
*7050	Warren's Double Edge Hernia Scalpel	1 50
*7051	Grimala's Hernia Knife	3 75
*7052	Cooper's " "	1 50
*7053	Belmay's " "	1 50
*7054	Thompson's " "	1 50
*7055	Tesse's " "	1 75



7049



7050

7051

7052

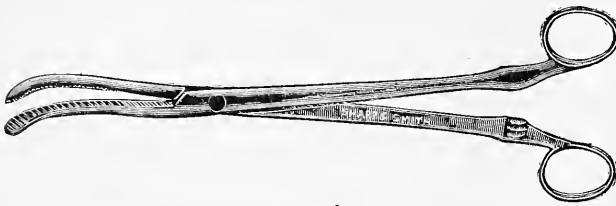
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7054

7055

For other Hernia Instruments see Index.

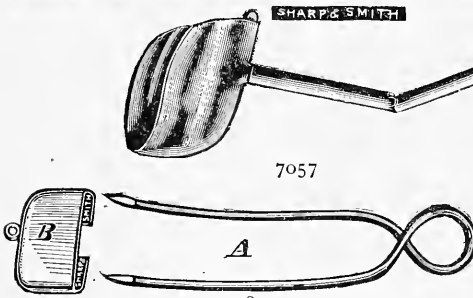
MISCELLANEOUS INSTRUMENTS—Gynæcological.



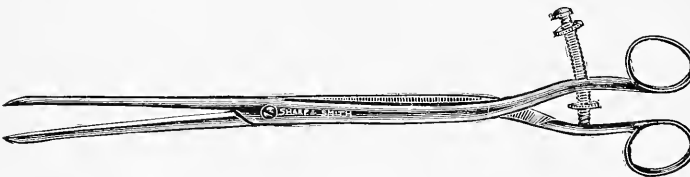
7056



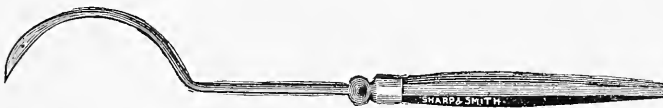
7057



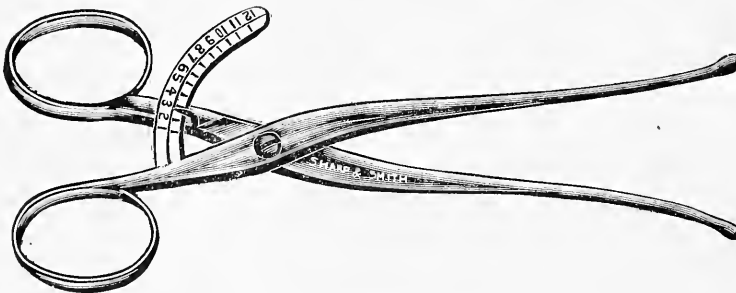
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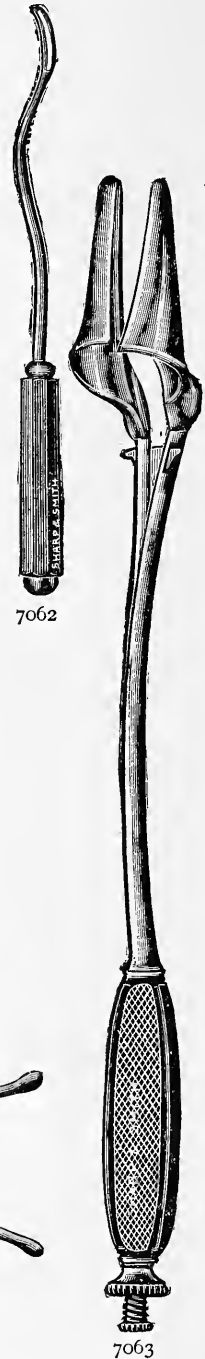
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7061



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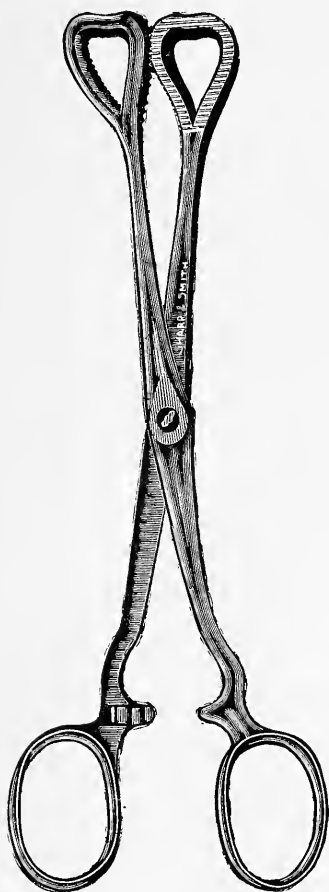
7063

For other Gynæcological Instruments see Index.

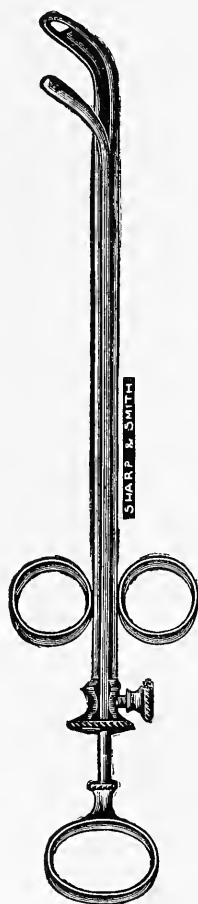
MISCELLANEOUS INSTRUMENTS—Gynæcological.

FIG.

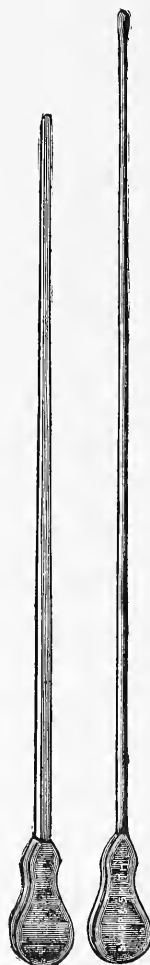
*7056	Skene's Compression Forceps.....	\$4 50
*7057	Byford's Uterine Elevator (for use with finger).....	
*7058	Borck's Cyst Elevator.....	1 15
*7059	Cushing's Pelvic Abscess Dilating Forceps and Trocar.....	4 00
*7060	Ludlam's New Perineum Needle.....	1 15
*7061	Vagrometer.....	3 00
*7062	Harris' Counter Pressure Instrument.....	1 50
*7063	Mathieu's Intra Uterine Speculum.....	7 50
*7064	Pean's Wide Hæmostatic Forceps.....	3 00
*7065	Maur's Polypotome.....	6 00
*7066	Dudley's Silver Uterine Applicator.....	85
*7067	" " " Probe.....	85



7064



7065



7066

7067

For other Gynæcological Instruments see Index.

MISCELLANEOUS INSTRUMENTS—Gynæcological.

STERILITY: INTRODUCING A NEW INSTRUMENT FOR ITS CURE.

By P. E. OUTERERIDGE, M. D., Assistant Surgeon to the Woman's and New York Cancer Hospitals; Attending Gynæcologist to the Demilt Dispensary.

An apology may seem in order for drawing the attention of the reader to a subject which is touched upon in most of the gynæcological textbooks of the present day, and with which every gynæcologist is supposed to be familiar. But at the present time there is a decided tendency to study with care only those things that are entirely new. I am aware that in taking up this topic I shall have to go over some old ground, but I trust, nevertheless, to be able to throw a little light on this rather old and threadbare subject. My connection with two of the largest clinics for diseases of women in this city has brought before me the frequency of the existence of sterility and its unhappy consequences, a condition, the amelioration of which must be apparent to all; moreover, I have found it to be the fact that by a large majority of the patients at the clinics sterility is often regarded with shame, not unmixed with a feeling of disgrace, ideas quite contrary to those entertained by patients among the better educated class, in whom superior training has lessened these ancient convictions, for we know that among the old Romans a barren wife was considered a cause for separation. The patients, therefore, who come to consult for this condition, often fail to mention the subject directly, in the hope that something may be done to bring about the possibility of conception. It is only, therefore, by close and careful questioning that we elicit from them the real object of their visit.

In cases that give this history some other reason is always found, but it is nevertheless possible that it may be due to some constitutional trouble which impairs the general condition, or from lack of food or exercise the parenchyma of the uterus and appendages is weakened and so rendered incapable of developing and sustaining a healthy ovum; but I believe this to be of rare occurrence. In my opinion the absence of proper conjugal feeling will almost invariably be found to be of local origin, and if diagnosed correctly and treatment be carried out intelligently, at least in seventy per cent. of the cases our efforts to cure will prove successful.

It must be remembered that sterility may exist in the male as well as the female, even though the sexual relation appears normal, and after a careful examination of the female, and no cause can be found for the existing condition, an examination of the male should not be omitted. I will not at present enter into detail as to how this should be conducted, but will simply state that with the microscope and other modern appliances a diagnosis can very easily be made. The reader can readily understand, if such a condition exist, it would be a great injustice to subject the female to prolonged treatment, even if she have some slight trouble.

Recognizing the many difficulties to be overcome, first, in obtaining the history, and next, in following out any of the lines of treatment suggested in the textbooks, which in many instances, are extremely difficult and in the end perhaps futile, I thought if some very simple means could be devised by which the two vital elements could at least be brought together, the probability of the desired result occurring (viz., pregnancy) would be increased fully fifty per cent., and so solve this difficult problem. It is unnecessary at present to mention the various operations and surgical appliances devised to accomplish this simple thing, for the reader is doubtless perfectly familiar with them, and knows or believes that, in a large majority of cases, a successful result is not obtained.

DR. OUTERBRIDGE'S INSTRUMENT—Continued.

The instrument I introduce in the following cuts is a very simple affair, consisting of a continuous steel wire made so as to form an anterior and posterior blade, with a slight eversion at one end, and at the other is bent at right angles. This shape adapts it admirably for the position it is to occupy in the cervical canal. The instrument is entirely self-retaining, and in consequence of its form, is not liable to change position. If, however, this should occur, it shows that it is not adapted to this special canal, and the operator can, with a

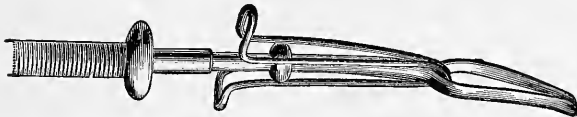


Fig. 7069—Outerbridge's Introducer, showing apparatus ready for introduction.



Fig. 7070—Outerbridge's Introducer, showing Dilator inserted, and Introducer being withdrawn.

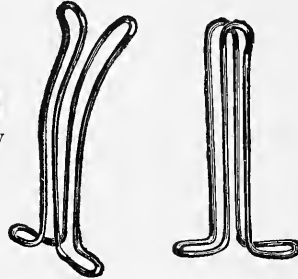


Fig. 7068—Outerbridge's Dilators.

small forceps, bend it to meet requirements. The dilator varies in length from one to three inches. The wire should be bent as desired, then tempered to give sufficient power, and heavily silver or gold-plated. This makes it perfectly clean—in other words, renders it safe. The first instrument I made by simply taking a hair pin and bending it into the required shape; this was used shortly afterward, being scraped and cleansed thoroughly with soap and water, and introduced with a plain dressing forceps, the uterus being steadied by a tenaculum.

This primitive instrument, of course is very much less effective, and apt to be even dangerous on account of its non-elasticity and possible accumulation of rust, whereas the present instrument is both yielding and aseptic.

The patient was allowed to go home with this instrument *in situ*, with the effect of relieving the dysmenorrhœa from which she suffered, and inducing conception immediately after the next menstrual period.

For introduction, the patient may rest either in Sims' position or on the back, if using a bivalve speculum. The dilator is then put in the grasp of an instrument made especially for this purpose, such as is seen in the accompanying cuts. It is about ten inches long, and consists of two small steel blades, crescentic in shape, slightly curved and about half an inch in length, which at the end fall together, making it similar to a slightly flexible blunt probe. There is a small place between these two blades, which gradually increases in size for two-eighths of an inch, then grows smaller and coalesces in a slightly flexible rod which is about an inch long, smooth and round; on this there is a movable ball; the blades are shaped to hold and compress the smaller or inner end of the dilator, and being movable, can be adjusted to any sized instrument that may be required.

I claim for this instrument that it dilates the cervical canal, making it possible in every instance, after copulation, for the semen to gain admission to the uterine cavity, thus bringing the male and female vital principles together with certainty.

For further description of these instruments, see "Medical Record," April 20, 1889.

MISCELLANEOUS INSTRUMENTS—Gynæcological.

[Extract from the New York "Medical Journal," May 18, 1889.]

A NEW NEEDLE HOLDER FOR ALL KINDS OF NEEDLES.

By W. W. VAN ARSDALE, M. D., INSTRUCTOR IN SURGERY N. Y. POLYCLINIC; ATTENDING SURGEON EASTERN DISPENSARY.

Presented before the Section in Surgery of the New York Academy of Medicine, April, 1889.

The jaws of the needle-holder represented in the accompanying cut work on the principle of Dr. G. R. Fowler's instrument, of Brooklyn. They are made smaller, however, so as to facilitate the application of buried sutures in small wounds, and the joint being a French lock, straight needles can be retained in proper position by being placed behind the transverse portion of the jaws against the longitudinal surfaces of the shafts. While the needle-holder, therefore, is especially intended for use with the Hagedorn needles, which are every day becoming more popular, it can be used equally well for straight needles, for needles partly or wholly curved on the flat, and for perfectly round needles.

In placing the flat Hagedorn needles in position the same precaution should be taken as in the Hagedorn needle-holder proper—namely, that of placing the portion of the needle which bears the eye in contact with the right side of the shaft of the instrument. (In the cut the needle is figured placed somewhat similarly on the left side.) The point of the needle should emerge at



the point of the beak of the instrument. This position allows of greater freedom of scope, and of easier rotation of the handles. The present instrument holds even the smallest flat needles so firmly, however, that this point of position need not be insisted upon, as is the case with Prof. Hagedorn's holder, which is frequently too weak in its action.

The shafts are sufficiently long to permit of placing sutures inside of cavities, though not too long to preclude delicate work in plastic operations. The instrument can be used for ophthalmic work, as small needles curved on the flat and held between the transverse portions of the jaws can be closely approximated to the organ. The whole instrument is about seven inches in length in the present model. For use with the very largest flat needles made, it should be one or two sizes larger, the present one being intended for general use.

The handles are made of vulcanized rubber conveniently fashioned to fit the hand, and can be made of any desired size to suit the operator. The posterior one is smaller than the anterior one, in order to facilitate rotation in suturing with curved needles; moreover it is flattened on the surface, so that one can tell the position of the holder in the hand by the feel of it alone.

The catch consists of a tongue provided with three angular ratchet teeth, which fit into two retaining side-bars in the opposite handle. When the first tooth is caught, the needle placed between the jaws is held moderately firm, and very firmly indeed when the second tooth operates; the third tooth, however, releases the catch by allowing the tongue to pass between the bars, and the instrument opens, releasing the needle. The action of the catch is in some sort automatic. By closing the handles of the instrument after placing the needle

For other Gynæcological Instruments, see Index.

in position, the blades become locked and remain so until the needle is passed, when simple further pressure upon the handles releases the needle, thus doing away with all difficult thumb movements necessary to release the needles in most other holders. In many holders, the needle can only be released if the catch happens to be opposite the thumb of the operator; the present instrument can be readily opened in every position, even when held upside down.

The instrument is a so-called antiseptic one. It can be instantly taken apart for cleaning. The blades readily come apart by means of the French lock. The two springs which open the blades and work the ratchet tongue respectively, are made in one piece and can be slid laterally out of the pivot-head which retains them. The tongue is moored in cannon bearings provided with side slots, from which it is easily disengaged after removal of the spring.

The hard rubber handles are vulcanized on while the steel is hot, and the whole is afterward finished in one piece, presenting perfectly smooth surfaces. Even the name of the maker does not cause any unevenness of the surface, being made of metal and sunk into the handle so as to permit of a perfect finish while remaining visible to the eye.

FIG.

*7068	Dr. P. E. Outerbridge's Dilators for Sterility, Heavily Gold Plated.....each\$	50
*7069	Dr. P. E. Outerbridge's Introducer for Dilators....."	5
*7070	" " " " " "	00
*7071	Dr. W. W. Van Arsedale's Universal Needle Holder.....	6 75

FIG.

FIG.	RECTAL INSTRUMENTS.	
*7080	Dr. E. H. Pratt's new Rectal Speculum.....	\$ 3 50
*7081	Dr. E. H. Pratt's " " Dilator.....	1 50
*7082	Dr. C. S. Eldridge's modification of Dr. E. H. Pratt's Rectal Dilator.....	2 00
*7083	Breshet and Marx' Syringotome.....	3 00

Fig. 7080.—DR. E. H. PRATT'S NEW RECTAL SPECULUM.

The new bivalve Rectal Speculum is intended for the examination of cases of fissure and other irritable conditions too sensitive to tolerate the use of the larger bivalve. Its cone shape expands the external more than the internal sphincter and brings the hæmorrhoidal inch nicely into view. It is not useful in all cases, but very much so in some.

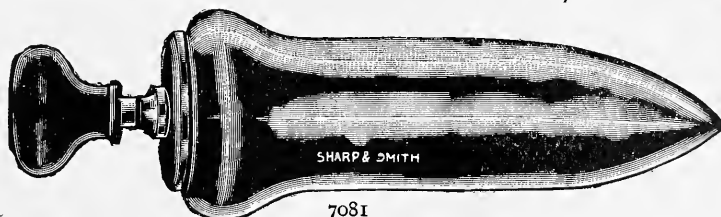
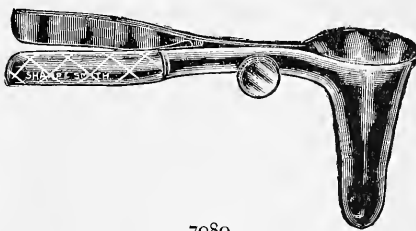


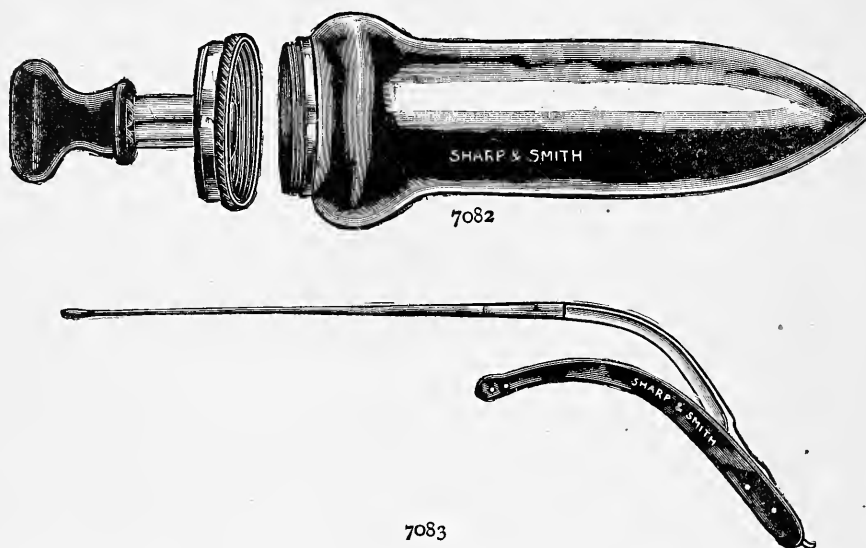
Fig. 7081.—DR. E. H. PRATT'S NEW RECTAL DILATORS.

The new Rectal Dilators are intended as an improved shape of what have been called 'The Eggs' (see page 694) ; they are much easier handled and do better work. Nature flushes her capillaries daily by a daily dilatation of the sphincter ani. In cases of chronic constipation or chronic diarrhœa, where she fails to do so, the new dilators make a very satisfactory substitute and have a tendency to re-establish natural habits. The dilators can be used

by the patients themselves, and are great adjuvants in the treatment of chronic diseases." For other Instruments of Dr. Pratt's, see Index.

Fig. 7082—DR. C. S. ELDRIDGE'S MODIFICATION OF PRATT'S RECTAL DILATOR.

As may be seen by accompanying cut, this Dilator is in two parts. It answers all the purposes of a Dilator, and in addition is made hollow, so that it can be filled with hot water or ice and salt, thereby making it an efficient means of treating the prostate and bladder when heat or cold is deemed necessary. It screws together so as to be absolutely water tight.



URETHRAL.

[Extract from the Journal of the American Medical Association.]

OPERATIONS FOR STONE IN THE BLADDER.

BY EDMUND ANDREWS, M. D., LL.D.

PROFESSOR OF CLINICAL SURGERY IN CHICAGO MEDICAL COLLEGE, AND SENIOR SURGEON OF MERCY HOSPITAL.

The new instruments and modified methods introduced by Bigelow, of Boston, for crushing and evacuating vesical calculi seemed at first dangerously severe. In litholapaxy one must often work with his instruments in the bladder for more than an hour, and it naturally impressed surgeons as a rash and perilous procedure. I confess to having felt strong fears in this direction, and many other surgeons were even more timid in the matter than myself. Prof. Paul F. Eve seems to have avoided the new plan almost entirely, and Prof. James R. Wood, of New York, shortly before his death, showed me his collection of vesical calculi, and informed me that he had just cut for stone the ninetyeth time, and had never crushed in a single instance.

However, experience soon showed that the bladder is far more tolerant of even a whole hour or more of careful instrumentation, which thoroughly clears it of debris, than of incision, or of repeated brief crushings which leave a mass of sharp-angled fragments in the cavity for days together. In short, the danger

of litholapaxy has proved, in my practice, decidedly less than that of the old style of lithotrixy, or of lithotomy. All hesitation has vanished.

I have now operated for stone one hundred times; fifty-five times by cutting, with seven deaths; six times by the old style of lithotrixy of Civiale and of Sir Henry Thompson, with one death; and forty times by Bigelow's litholapaxy, with one death. (See Journal referred to, for a summary of the cases.)

Careful mathematical calculations, verified by experiments, showed me three years ago that, by having a reservoir of warm carbolated water 42 inches above the pubis of the patient, and a peculiarly constructed double tube, the inflow channel can be reduced to a small size, and still supply a current forcible enough to sweep all fragments rapidly out of the bladder. The following cuts illustrate the apparatus:

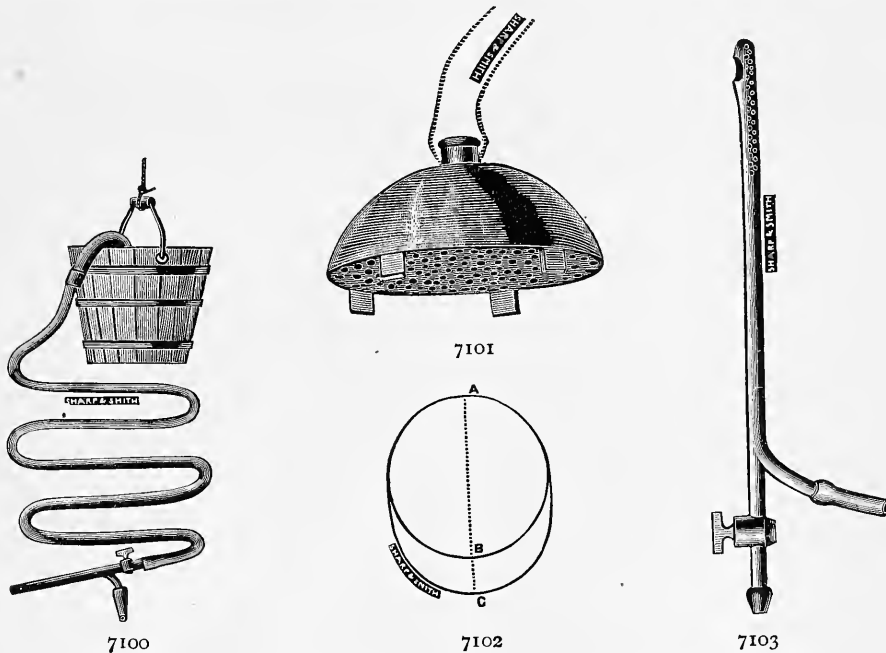


Fig. 7100 represents a bucket or other reservoir filled with warm carbolated water and suspended 42 inches above the patient's pubis, while a syphon of rubber tubing descends from the bucket to the inflow branch of the evacuating tube.

A strainer shaped as in Fig. 7101 is attached to the upper end of the tube and dropped into the bucket. The evacuating tube is double, and the inflow part is smaller than the outflow, and lapped half way around it as shown in enlarged cross sections in Fig. 7102, where the cylindrical tube A B is the outflow channel and the lunate space B C is the inflow portion.

Fig. 7103 gives a side view of the evacuator. Z is the inflow tube which attaches to the rubber syphon shown in Fig. 7100. The inflow tube passes by the curved outflow tube J O without infringing on its caliber, and laps itself around the under half of the outflow tube as shown at B C, Fig. 7103. Near the end X, it discharges into the bladder by about thirty small openings.

CONTINUED ON FOLLOWING PAGE.

This sends a copious current into the bladder, which rushes into the fenestrum X of the outflow tube X J O, and sweeps out the crushed fragments with great velocity.

It will be observed that the outflow tube is prolonged a little by a piece of rubber tubing J O, the use of which requires a word of explanation. Both in Bigelow's instrument and in my own, the fenestrum X is often blocked by several fragments rushing to the orifice at once, and locking themselves together in a sort of arch, obstructing the outflow and causing a sudden diminution of the stream of water. When this occurs, the surgeon closes the lower end of the short rubber tube J O by seizing it with the thumb and finger of one hand, and then with the corresponding digits of the other hand suddenly compressing the rubber just above. This sends a quick, forcible jet back into the bladder, driving back the fragments lodged across the fenestrum X, and permitting the outward current to resume its course. I devised this apparatus three years ago, and have reason to be highly pleased with its use.

In respect to the new term, litholapaxy, some object that it designates only an improved form of lithotritry, and consequently that Bigelow is not really entitled to inflict it upon an art already overburdened with technicalities, and some European authors decline to use it. However, there are good reasons for adopting it. Lithotritry is a harsh, rough word, and has the inconvenience of sounding so much like lithotomy when carelessly spoken, that surgical teachers and pupils dislike it. Litholapaxy, on the contrary, is smooth and easily distinguished. Moreover, it etymologically means "stone evacuation," and hence is appropriate to include both cases of actual crushing, and also those frequent ones in which the great tubes of Bigelow evacuate stones of some little size without the necessity of crushing. The ability to do this is an important merit. It is probable, therefore, that the word litholapaxy will remain in use, and lithotritry disappear.

No. 6 SIXTEENTH ST., CHICAGO.

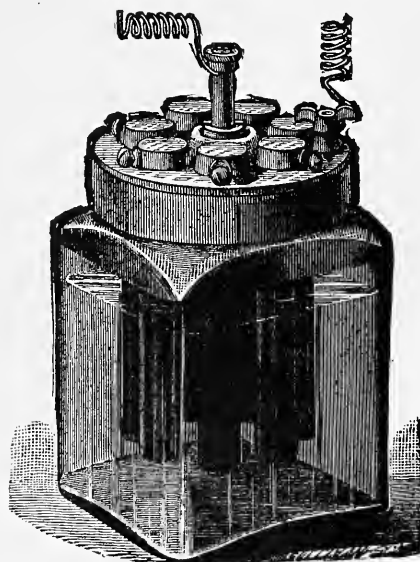


FIG.

7104 Sage's Urethral Powder

Blower.....\$10 00

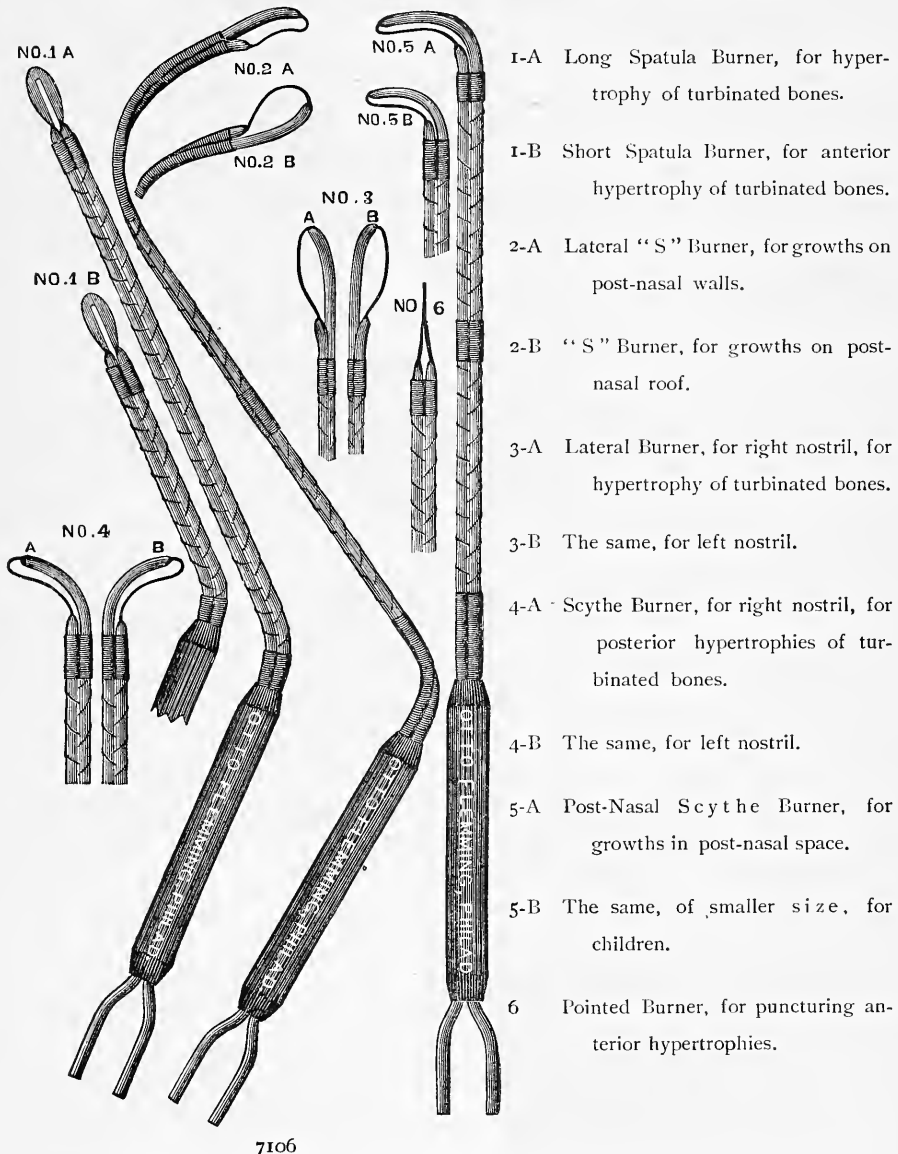
*7105 The Improved Diamond

Carbon Battery Cell.. 1 00

7105

For other Urethral Instruments see Index.

MISCELLANEOUS INSTRUMENTS—Electrodes.



7106

DR. F. B. EATON'S NASO-PHARYNGEAL CAUTERY ELECTRODES.

(The above cut represents natural sizes.)

FIG.		
*7106	One Complete Set (11 Burners) in case.....	\$20 00
	Each Single Burner	1 75
	Heavy Conducting Cord, complete.....	2 00
	Clamp Attachment, to fasten to any suitable Cord.....	75
	20 per cent. Discount.	

For other Electrodes, see Index.

MISCELLANEOUS INSTRUMENTS—Splints.
**NEW SPLINTS.—LEE'S METALLIC SPLINTS.—ANTISEPTIC, PER-
 FORATED AND NICKEL-PLATED.**

PATENTED OCTOBER 30TH, 1888.

Having numerous inquiries from time to time for Anterior Splints, to match our Posterior ones, we have decided to manufacture the four following new and useful forms:

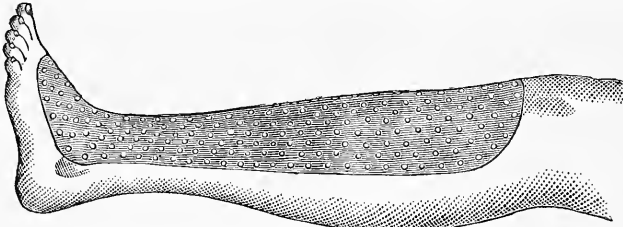


Fig. 7150—No. 14—Anterior Tibia Splint. Two in each set. Adults and Children. Can be used separately or in combination with No. 9 (Fig. 4579) Splint.each \$1 00.

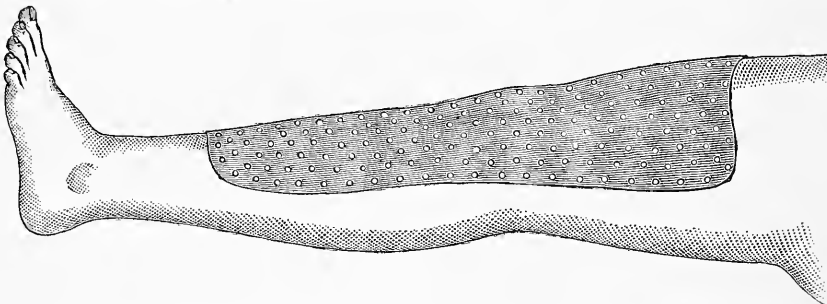


Fig. 7151—No. 15—Anterior Patella Splint. Two in each set. Adults and Children. Can be used separately or in combination with No. 8, (Fig. 4578) Levis' Splint.each \$1 00.

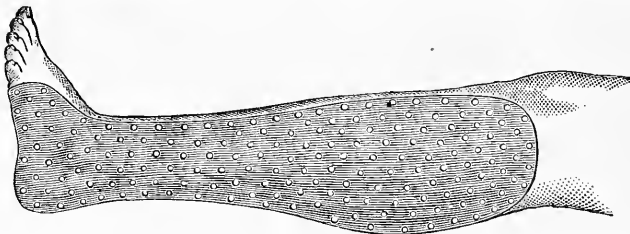


Fig. 7152—No. 16—External Ankle Splint. Four in each set. Rights and Lefts. Adults and Children. This is designed to replace the old fashioned wooden Splint.each \$1 00.

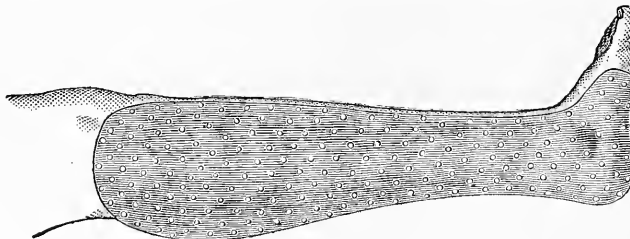


Fig. 7153—No. 17—Internal Ankle Splint. Four in each set. Rights and Lefts. Adults and Children. This is designed to replace the old fashioned wooden Splint.each \$1 00.

For other Splints, see Index.

WM. H. WIGMORE,

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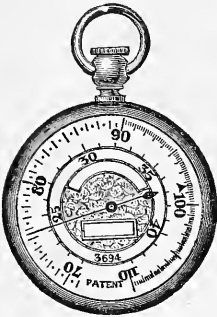
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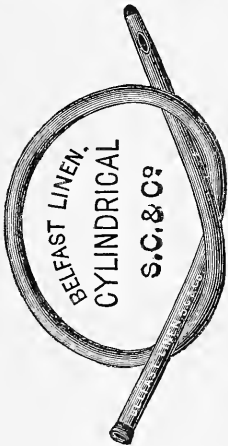
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" 3	Morphinæ Sulphas 1-4 grain,	20	" 39	Cocainæ Hydrochlor. 1-8 grain,	30
" 4	Morphinæ Sulphas 1-6 grain,	20	" 40	Cocainæ Hydrochlor. 1-10 grain,	25
" 5	Morphinæ Sulphas 1-8 grain,	20	" 41	Duboisinæ Hydrochlor. 1-60 gr'n,	15
" 6	Morphinæ Sulphas 1-12 grain,	20	" 42	Duboisinæ Hydrochlor. 1-100 gr'n,	15
" 7	Morphinæ Sulphas 1-2 grain,		" 43	Duboisinæ Hydrochlor. 1-60 gr'n,	
" 8	Atropinæ Sulphas 1-100 grain,	25	"	Morphinæ Sulph. 1-4 grain,	20
" 9	Morphinæ Sulphas 1-3 grain,	20	" 44	Duboisinæ Hydrochlor. 1-100 gr'n,	
" 10	Atropinæ Sulphas 1-120 grain,	20	"	Morphinæ Sulph. 1-8 grain,	15
" 11	Morphinæ Sulphas 1-4 grain,	20	" 45	Hyoscyaminæ Sulph. 1-60 grain,	15
" 12	Atropinæ Sulphas 1-150 grain,	20	" 46	Hyoscyaminæ Sulph. 1-100 grain,	15
" 13	Morphinæ Sulphas 1-6 grain,		" 47	Hyoscyaminæ Sulph. 1-60 grain,	
" 14	Atropinæ Sulphas 1-180 grain,	20	"	Morphinæ Sulph. 1-4 grain,	20
" 15	Morphinæ Sulphas 1-8 grain,	20	" 48	Picrotoxini 1-40 grain,	15
" 16	Atropinæ Sulphas 1-200 grain,	20	" 49	Picrotoxini 1-60 grain,	15
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" 20	Atropinæ Sulphas 1-100 grain,	15	" 52	Coninæ Hydrobrom. 1-100 grain,	15
" 21	Atropinæ Sulphas 1-150 grain,	15	" 53	Coninæ Hydrobrom. 1-100 grain,	
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" 24	Strychninæ Sulphas 1-150 grain,	15	" 55	Curarinæ Sulph. 1-80 grain,	15
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" 26	Apomorph. Mur. 1-20 grain,	20	" 57	Eserinæ Sulph. 1-60 grain,	15
" 27	Pilocarpinæ Mur. 1-4 grain,	50	" 58	Eserinæ Sulph. 1-80 grain,	15
" 28	Pilocarpinæ Mur. 1-8 grain,	30	" 59	Eserinæ Sulph. 1-100 grain,	15
" 29	Pilocarpinæ Mur. 1-20 grain,	20	" 60	Eserinæ Sulph. 1-100 grain,	
" 30	Pilocarpinæ Mur. 1-2 grain,	90	"	Morphinæ Sulph. 1-6 grain,	15
" 31	Pilocarpinæ Mur. 1-3 grain,	65	" 61	Physostygmine Salicylas 1-40 g,	15
" 32	Pilocarpinæ Mur. 1-10 grain,	25	" 62	Physostygmine Salicylas 1-60 g,	15
" 33	Aconitinæ 1-60 grain,	30	" 63	Caffeinæ 1-2 grain,	20
" 34	Aconitinæ 1-130 grain,	20	" 64	Caffeinæ 1 grain,	25
" 35	Aconitinæ 1-260 grain,	15	" 65	Quin. Carbam. Mur. 1 grain,	25
" 36	Morph. Bi-Meconas 1-3 grain,	30	" 66	Quin. Carbam. Mur., 2 grains,	40
" 37	Morph. Bi-Meconas 1-4 grain,	25	" 67	Quin. Carbam. Mur. 3 grains,	60
" 38	Morph. Bi-Meconas 1-6 grain,	20	" 68	Hyoscin. Hydrobrom. 1-100 gr'n,	40
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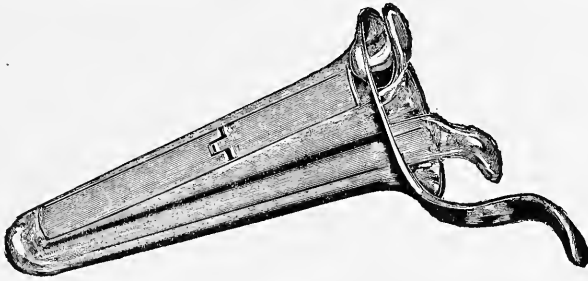


Fig. 1

Shows the instrument ready for use.

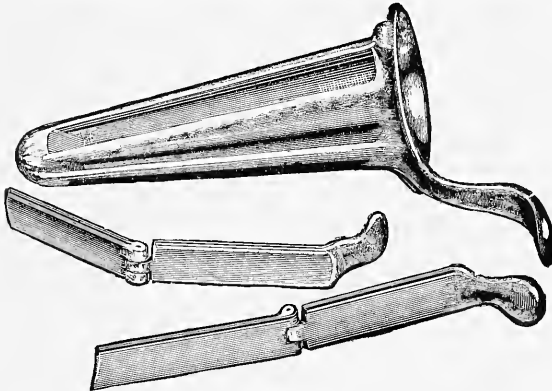


Fig. 2

Shows the slides withdrawn and illustrates the character of the milled edges which fit in the grooves of the slots.

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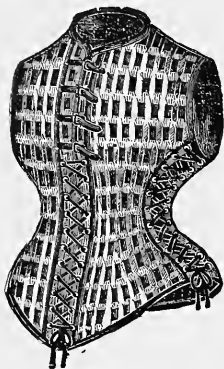


Fig. 1.

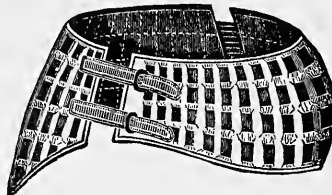


Fig. 6.

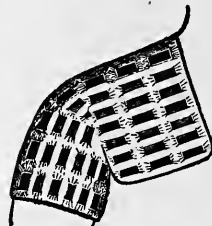


Fig. 5.



Fig. 10.

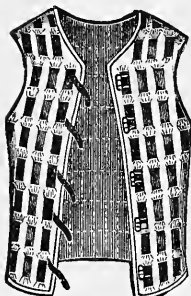


Fig. 2.

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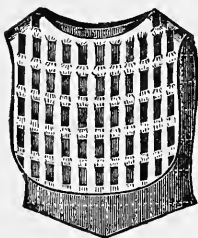


Fig. 3.

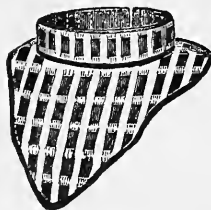


Fig. 4.

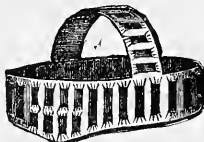


Fig. 7.

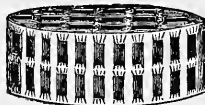


Fig. 8.

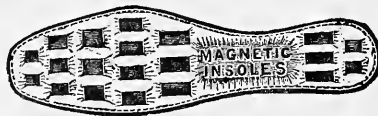


Fig. 13.



Fig. 9.



Fig. 11.



Fig. 12.

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Fig. 16.



Fig. 14.



Fig. 17

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Fig. 18.

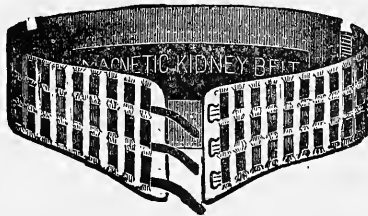


Fig. 15.



Fig. 18.

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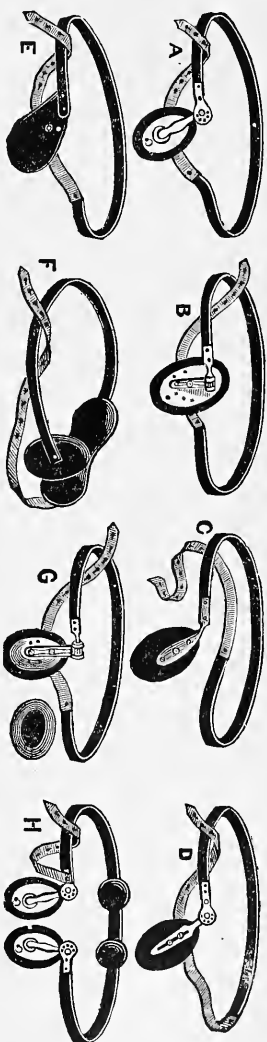
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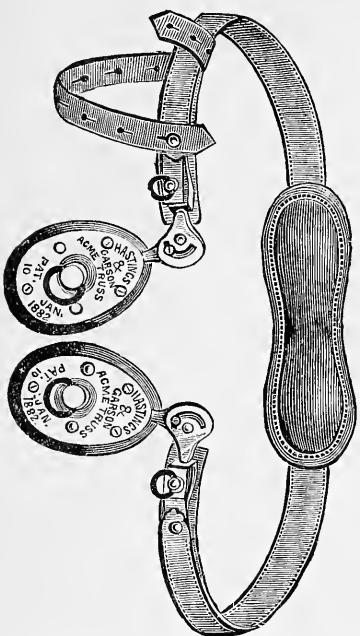
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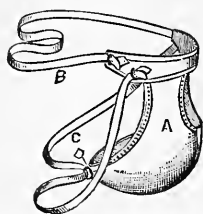


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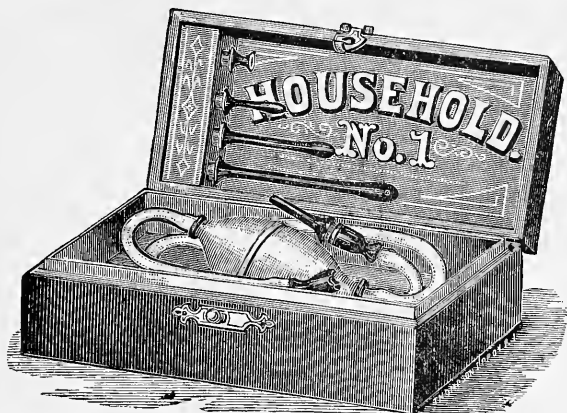
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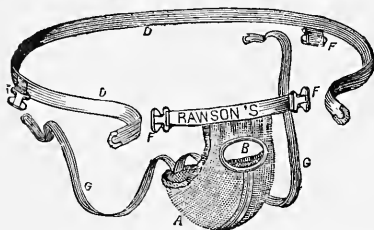
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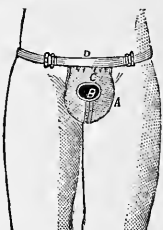
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No. 4 —Superfine plain Elastic Waistband and Buttock Straps, with two adjusting buckles at abdomen, and two Buttock Strap adjusting buckles. Bags of finest French material, very soft and durable. Extra quality silk trimmings, and beautifully finished.....	3 00
No. 5 —Silk Bag. Superfine Elastic Waistband and Buttock Straps, with two adjusting buckles at abdomen, and 2 Buttock Strap adjusting Buckles. Bags of fine English Silk netting in white or flesh color. Superfine quality Silk trimmings, beautifully finished.....	3 50
No. 6 —All Silk—Superfine Silk Elastic Waistband and Buttock Strap, with 2 adjusting buckles at abdomen, and 2 Buttock Strap adjusting buckles. Bags of fine English or French silk netting in white or flesh colors. Superior quality Silk trimming and artistically finished.....	5 00

Each Bandage is put up in a Tinted Box, and 1 doz. of these Boxes are packed in a Carton, Labeled with No. and Size, making them the Neatest and Most Satisfactory Stock among Druggist's Sundries.

IMPORTANT TO THE TRADE.

Dealers will confer a favor by returning to us any of Rawson's U. S. Army Suspensory Bandages in which the Elastic has deteriorated or the Bandage has in any way become imperfect while in stock, and we will replace them with new goods. We make this request as it is our aim to keep only first-class goods, perfect and superior in every particular, on the market of our manufacture.

S. E. G. RAWSON.

CAUTION.—Be sure that "Rawson's Patent Elastic Self-Adjusting U. S. Army Suspensory Bandage," together with the No. and Size of the Bandage are printed on the Waistband; also on the label of the box which contains it.

For Sale by all the Leading Wholesale Drug and Surgical Instrument Houses in the U. S.

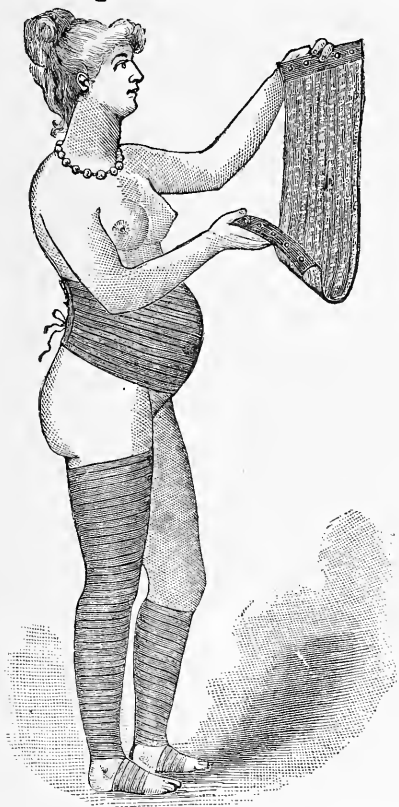
Orders received and promptly executed by the Patentee and Sole Mfr., **S. E. G. RAWSON, Saratoga Springs, N. Y.**

TRADE SUPPLIED BY
SHARP & SMITH.
SEND IN YOUR ORDERS.

.....THE.....
Empire Abdominal Supporter

MANUFACTURED BY
THE EMPIRE MANUFACTURING CO.,
LOCKPORT, N. Y.

Is Superior to all others for the following Reasons:



1st. It adapts itself to every movement of the body, giving strong and even support.

2d. It produces warmth without irritation or sweating, as it is perfectly ventilated.

3d. In pregnancy, corpulency, tumors, or other cases of enlargement of abdomen, it supports weight of body from the backbone, relieving the sinews of their overwork.

4th. Its easy appliance. (Lace and draw on over the head or feet.)

5th. It is cheap, durable. It can be washed when soiled, proper care being taken to cleanse in lukewarm water, and dry in the shade.

In ordering give the Measure of the Abdomen.

The Supporter should be from four to ten inches larger, according to the degree of support required.

PHYSICIANS' PRICES.

Common Size, 8 inches wide, \$2.50; Extra Size, 11 inches wide, \$3.00; All Silk, 8 inches wide.

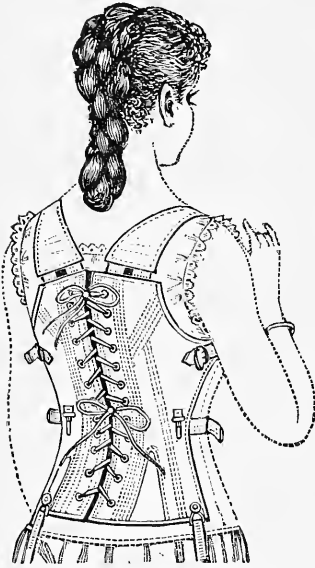
THE EMPIRE UMBILICAL TRUSS

Is made of the same material, and possesses the same merits as the Empire Elastic Bandage and Empire Abdominal Supporter, and is pronounced by all who have seen it to be the best. All of our goods are sent free by mail on receipt of price, and money refunded if not satisfactory.

Infant, 3 inch Supporter, \$1.00; Children, 5 inch Supporter, \$2.50; Adult, 11 inch Supporter, \$4.00.

FOR SALE BY SHARP & SMITH.

Dr. Gray's Back-Supporting Shoulder Brace.



PATENTED FEB. 24, 1880.



"As the twig is bent, so is the tree inclined." The truth of this old adage is forcibly brought to mind when one sees a man or woman disfigured by a crooked spine or stooping shoulders, and one mentally exclaims, If that person had only had proper care when young, that awkward figure might have been avoided.

For the purpose of correcting this evil, the **Back-Supporting Shoulder Brace** has been devised, and so effectual is it in accomplishing its purpose, that it is rapidly growing in favor with all who have worn it, and it is spoken of in the highest terms of praise by all physicians who have seen and examined it.

Attention is called to the general construction, by which a perfect strengthening support is given to the back, at the same time drawing the shoulders back so as to expand the chest and throw the body into an erect, graceful position. All tendency to round shoulders is thus avoided, and this to the young, at the period when the bones and muscles are growing and hardening, is a most important item.

Provision is made for attaching skirts and stocking supporters, thus relieving the hips entirely from the drag of both.

PRICE \$1 50.

Sold by Druggists and Dry Goods trade, or sent by mail, postage prepaid, on receipt of price.

In ordering, give waist measure outside dress.

The Combination

BACK-SUPPORTING SHOULDER-BRACE

AND

SUSPENDER FOR MEN AND BOYS.

PATENTED AUGUST 16, 1881.

This Brace provides a firm yet flexible support for the back from the hips to the shoulders, to which is attached at the waist a yielding belt, which helps to keep the back support in place. At the upper part are connected carefully-constructed adjustable pads, so arranged as to draw the shoulders gently back without cutting or chafing under the arms, thus inclining the body to a graceful, erect position, expanding the chest and correcting all tendency to stooping or round shoulders. Suspenders attachments are also added for the pantaloons, which render other suspenders unnecessary. For youths at the growing age, when bones and muscles are forming and hardening, it will be found especially desirable, and for men who from sickness or sedentary occupations are afflicted with weak backs, it will be found a grateful support and possibly a positive cure.

Made in 3 sizes.	Will fit any person.	Waist measure.	Price.
Boys'.....4 ft. 8 in.	to 5 ft. 2 in.	tall.....26 to 29 in.	\$2 00
Young Men's 5 ft. 2 in.	to 5 ft. 8 in.	tall.....27 to 32 in.	2 25
Men's.....5 ft. 8 in.	to 6 ft. tall	.....28 to 34 in.	2 50

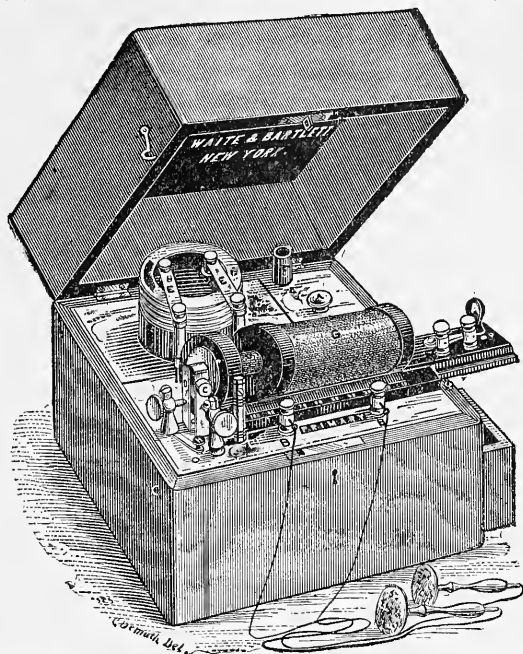
Sold by the Druggists and Gent's Furnishing trade, or sent by mail, postage prepaid, to any part of the United States on receipt of price. Address as below.

GEO. FROST & CO.,

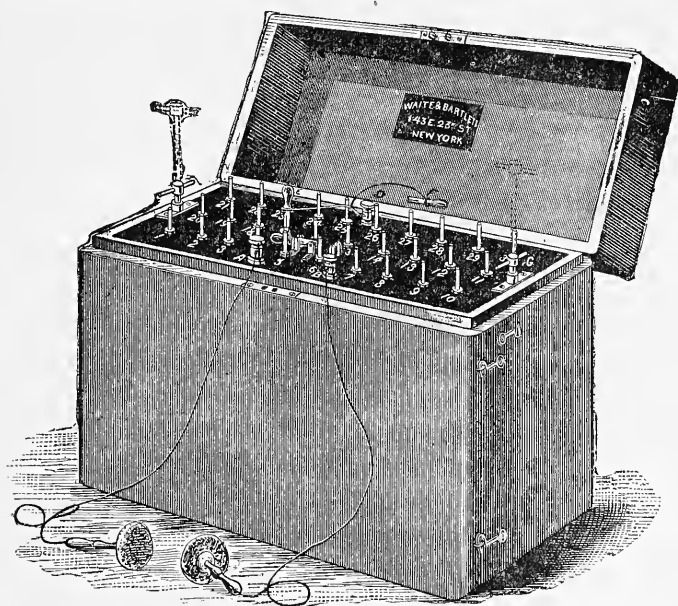
Sole Manufacturers, 287 Devonshire Street, Boston, Mass.

For Sale by **SHARP & SMITH,** Chicago, Ill.

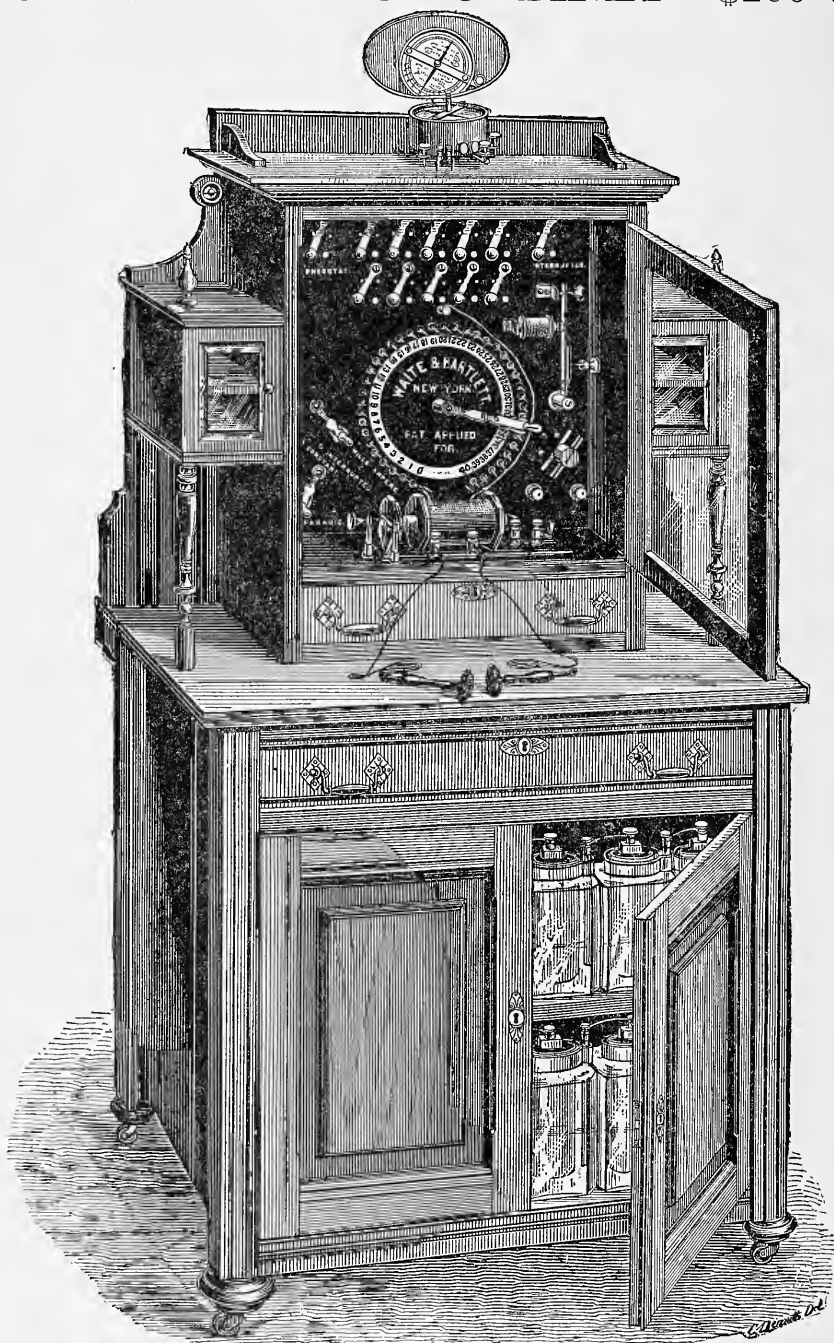
WAITE & BARTLETT'S



No. 2 Physician's Faradic Battery. - - - - - Price, \$20 00



Plug and Socket Galvanic Battery. - - 20 Celled, \$30.00. 30 Celled, \$38.00
143 EAST 23d STREET, NEW YORK.

COMPLETE OFFICE CABINET. \$260 00

(PATENTED MAY 12th, 1887. OTHER PATENTS PENDING.)

WAITE & BARTLETT, - 143 East 23d St., New York.

CHAS. BESELER,

218 CENTER STREET, - NEW YORK,

MANUFACTURER OF

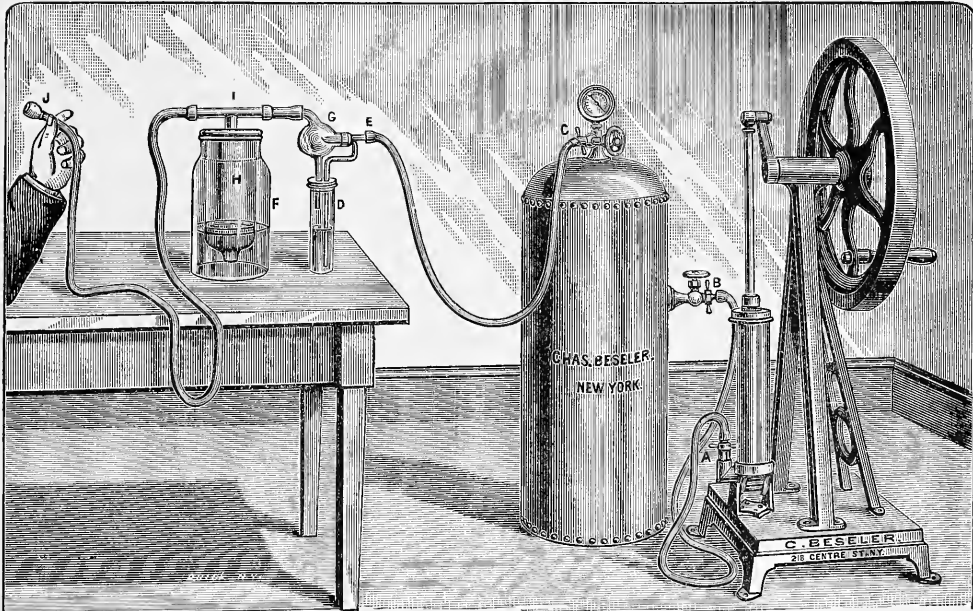
COMPRESSED AIR ATOMIZERS, INHALERS, AIR AND
GAS PUMPS, GAS RECEIVERS

AND THE MOST IMPROVED

Outfits for Preparing and Inhaling Oxygen

INHALING APPARATUS.

For administering Vaporized Medicine in the treatment of Throat and Lung difficulties, as designed by DR. N. L. MACBRIDE, N. Y., shown in connection with the celebrated Novelty Air Pump and No. 5 Air Receiver. Ten by thirty-two inch.



Each Inhaler is provided with the necessary Rubber Tubing (three and a-half feet), and one Hard Rubber Mouthpiece.

Glass tube *D* to contain the liquid to be vaporized ; glass jar *F* to be half filled with clear water.

FOR SALE BY SHARP & SMITH.

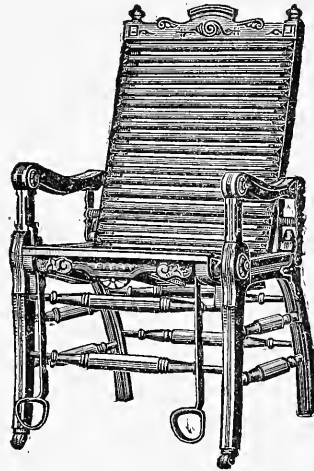
Curtiss' Gynæcological Chair.

MANUFACTURED BY

J. S. FORD, JOHNSON & CO.,
CHICAGO.

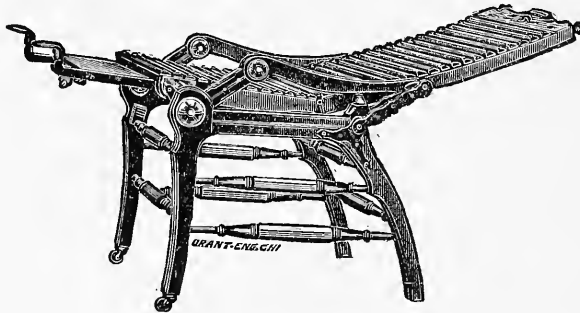
Indorsed and used by A. REEVES JACKSON, M. D.; E. M. HALE, M. D.; N. B. DELAMATER, M. D., J. S. MITCHELL, M. D., and other prominent members of the profession.

AUTOMATIC
IN
ACTION.



SIMPLE
IN
CONSTRUCTION.

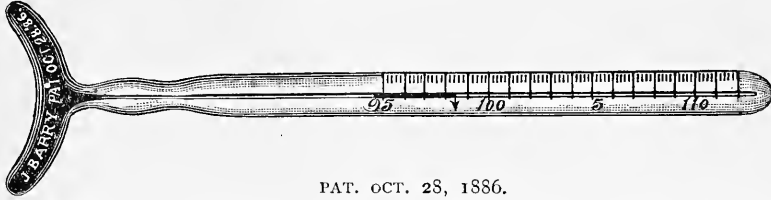
Made of Black Walnut. Stirrups Nickel Plated,
HAS SLIDING SHELF FOR INSTRUMENTS.



PRICE \$25.00 NET.

For sale by **SHARP & SMITH**, and all prominent dealers throughout the United States.

CLINICAL THERMOMETERS.



PAT. OCT. 28, 1886.

A NEW FORM OF CLINICAL THERMOMETER FOR TAKING TEMPERATURES UNDER THE TONGUE.

Clinical Thermometers, as they are usually made, have their stem joined at the end of the Cylinder Bulb, which is mostly $\frac{3}{4}$ to 1 inch long. Thus, when pushed under the tongue so as to put the bulb far enough back in order to get at the true temperature of the patient in that part, the end of the bulb will slide either side. Otherwise the pointed Cylinder is liable to smart, if not hurt.

The improvement is in the stem, or graduated part, being brought parallel with the center of the cylinder, and having the bulb partly curvative, so that it will come in contact with all the necessary parts under the tongue, and at the same time will rest securely, and not slide either way. By this means, as well as by the fact that the bulb is surrounded by the flesh, either with the mouth shut or open, the heat being evenly distributed, a more uniform and satisfactory result may be obtained. The instrument may be used for surface temperatures, and its crutch shape also adapts it to the Axilla.

They cannot roll, are strongly made, and with ordinary care will last for years.

JOHN BARRY, Patentee and Maker, New York.

SHARP & SMITH, Principal Agents, 73 Randolph St., Chicago.

CUSHMAN'S

Soft

HOTAN

Gelatine

MENTHOL SUPPOSITORIES.

With Cocaine, Powdered Boracic Acid, Sub-Nitrate of Bismuth and Sulphate of Morphia.

IN offering the Menthol Suppository to the medical profession we claim many advantages over suppositories made from Cocoa Butter, which forms a coating and imposes an oily substance between the membrane and the medicine. It prevents in many instances the best action of the remedy. The Menthol Suppository is a dry powder in a Soft Gelatine Capsule. Moisture and normal heat of the body will dissolve this capsule in two or three minutes, leaving the dry powder in direct contact with the parts affected, securing the full and best effects of the remedy.

CURATIVE PROPERTIES OF MENTHOL.

By its action upon the vaso-motor nerves it causes a contraction of the arterioles of the parts, thereby diminishing their caliber and regulating the amount of blood passing through the parts; by its power to diminish the caliber of the arterioles it has a tendency to arrest active congestion and acute inflammation, and by its action on the venous plexuses will prevent congestion and chronic inflammation. Menthol Suppositories are free from any medicine that will coagulate the secretions of the affected parts, thereby forming false membranes to weaken the patient, and they can be used with the least possible inconvenience.

ENDORSED BY LEADING PHYSICIANS.

Cleanly, Easily Applied, Safe and Sure to Give Relief.

 Price to Physicians \$6.00 per dozen Boxes. Each box contains 1 1/2 dozen Capsules. Write for samples.

Manufactured by **W. H. SHEPARD CO.,**

For Sale by all Instrument Dealers.

Three Rivers, Michigan.

THE NEW PATENTED CLINICAL THERMOMETER.



☞ All these Thermometers must be marked BAYER'S PATENT, MAY 29/88, otherwise they are an infringement, and are worthless.

The invention consists in a Clinical Thermometer having a bulb of glass colored in its body. The advantage of a colored bulb is that the Thermometer is rendered thereby more sensitive to changes in heat, which is especially valuable in Clinical Thermometers, as these are brought into contact with the person, and should indicate any slight change in temperature quickly. The glass used for the bulb may be of any color, varying in shades from opaque white to black, or two or more colors may be combined in one bulb. The colored bulb also improves the appearance of the Thermometer, and causes the mercury in the bore of the tube to be seen plainer. The most expert workmen of the art are employed in their manufacture, as it is our intention to introduce first quality instruments.

FOR SALE BY

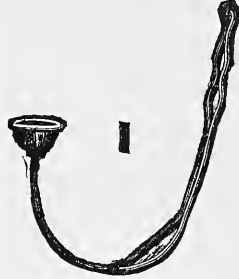
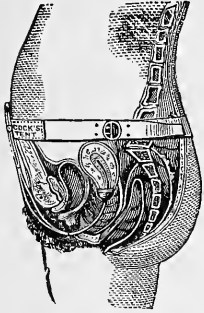
Hazard, Hazard & Co., Ph. H. Schmidt & Co.,
 George Tiemann & Co., J. Reynders & Co.,
 F. G. Otto & Sons, Sharp & Smith, Chicago
AND OTHER FIRST-CLASS INSTRUMENT HOUSES.

Physicians wishing an Accurate Instrument ask for
BAYER'S PATENT CLINICAL THERMOMETER.

BAYER & FLETCHER,
 63 Fulton Street, NEW YORK.

For Sale by SHARP & SMITH, Chicago.

Dr. L. A. Babcock's Pure Silver Uterine Supporter.



of electricity: if the aim is to *cure* the patient, then the best and purest instrument should be used. With fair usage, this instrument will last for years, and after a cure is effected, and it is no longer required for that purpose, there is still value remaining in it.

Full proof will be furnished to all who wish to test the truth of the matter here stated.

Price to Physicians, - - - \$10 50.

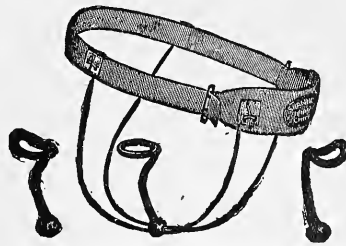
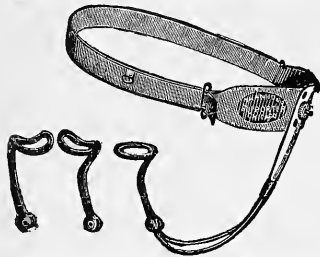
✻ N. F. TAYLOR ✻

(Successor to Dr. L. A. Babcock in the Manufacture and Sale of the Silver Uterine Supporter.)

658 TREMONT STREET, - - - BOSTON, Mass.

For Sale by Sharp & Smith.

PRICES REDUCED ON THE SHANNON SUPPORTER



THE SHANNON SUPPORTER IS THE MOST NATURAL UTERINE SUPPORTER
EVER MADE

FOR PROLAPSUS, RETROVERSION AND ANTEVERSION

Halsey's Modification for Cystocele, \$10 00.

HALSEY BROS. | Homœopathic Pharmacy. | CHICAGO.

KIRK'S MEDICINAL TOILET SOAPS ARE UNEQUALED.

Indorsed by the Medical Profession.

CARBOLIC.—(Enveloped).



No. 129—Boxes of 3 Cakes (Paper), per gross, \$15 00

JUNIPER TAR OIL.—(Enveloped).



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TAR OIL AND GLYCERINE.



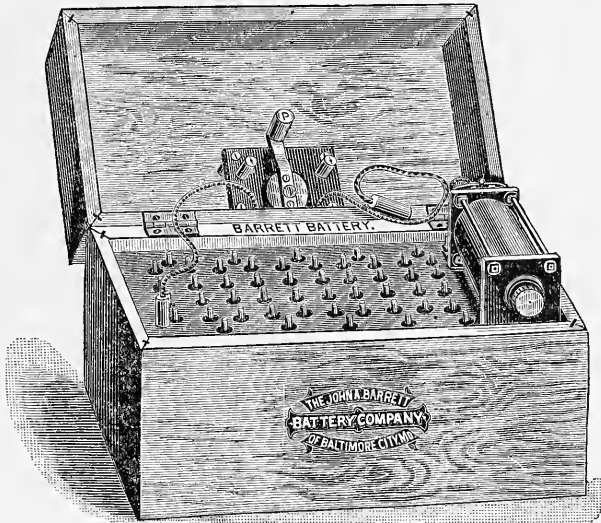
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**JAS. S. KIRK & CO.,
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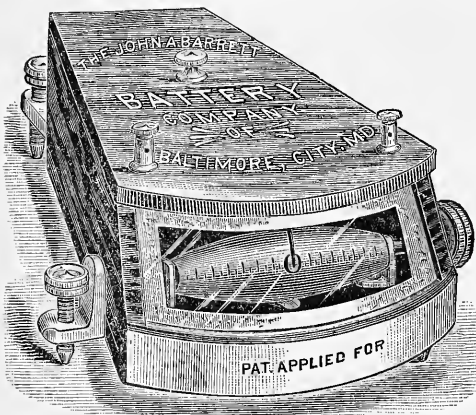
**SOAP MAKERS, PERFUMERS, CHEMISTS.
REFINERS OF GLYCERINE.**

The John A. Barrett Battery Company, OF BALTIMORE, MD., MANUFACTURERS OF THE CHLORIDE OF SILVER DRY CELL BATTERIES.

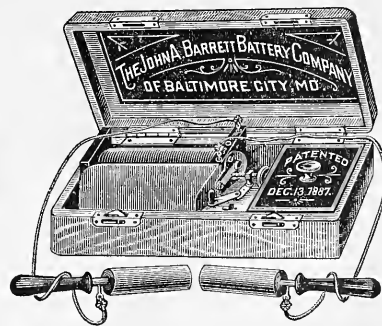
(Pat. Feb. 23, 1886. Pat. Dec. 13, 1887. Pat. May 7, 1889. Pat. May 14, 1889. Pat. June 11, 1889.)



... COMBINATION, GALVANIC AND FARADIC BATTERY ...
THE CHLORIDE OF SILVER DRY CELL BATTERIES
Have distanced all Competition; hence the days of antiquated Acid Batteries for the
use of Physicians and Families are numbered. Our Batteries have proved
to be Original, Compact, Portable, Constant, and Economical.
THEY NEED NO REPAIRS. THEY ARE ALWAYS READY.
In fact, it is the Battery of Batteries.
SEND FOR CATALOGUE. READ INDORSEMENTS.



MIL-AM-METER.



FARADIC BATTERY.

Full Line for Sale by Sharp & Smith.

JOHNSON & JOHNSON'S IMPROVED PLASTER OF PARIS BANDAGES.

(PATENT APPLIED FOR.)

THE OLD METHOD

Of preparing Plaster of Paris Bandages, namely, rolling up the loose plaster with the cloth, produces a slovenly combination, which is difficult, inconvenient, and untidy to use.

THE NEW METHOD

Of preparing Plaster Paris Bandages, invented by our Mr. R. W. Johnson, entirely does away with the above objections. It consists of mixing the Plaster with an adhesive substance, dissolved in a volatile solvent, having no effect upon the Plaster, then spreading the mixture upon cloth with especially devised machinery. The evaporation of the solvent leaves the plaster firmly and smoothly adhering to the cloth, and the result is a bandage, neat, convenient, and as easily applicable as an ordinary cloth bandage.

Spread Poultices or Water Dressings. SOMETHING NEW.

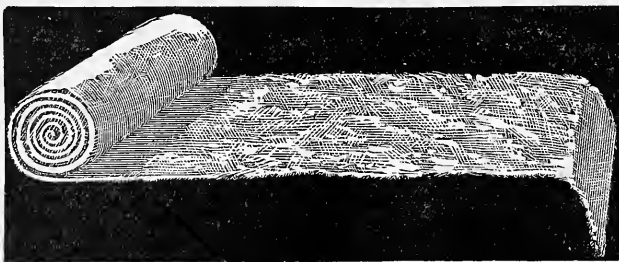
Among the new products recently added to our list are Prepared Poultices, Starch, Flaxseed, Slippery Elm, and Iceland Moss. They are made after the manner of Prepared Mustard Plasters, and are made ready for use by dipping in water. They possess the same relative advantages over ordinary Poultices as are offered by Prepared Mustard Plaster over the ancient home made Mustard Plaster. They will be found of great service as an emollient dressing for an inflamed skin, and in extreme cases of eczema, erysipelas, etc.

ABSORBENT COTTON (J. & J.)

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IN EVEN
SHEETS
WITH
TISSUE
PAPER

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o o o o o o

ROLLED
BETWEEN
TO PRE-
VENT
FELTING.

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JOHNSON & JOHNSON,

Manufacturing Chemists,

92 WILLIAM STREET, - - - NEW YORK,

Manufacturers of Medicated and Surgical Plasters and Antiseptic Dressings of all Kinds

A FULL LINE CONSTANTLY ON HAND AT SHARP & SMITH'S.

FLEMMING'S Faradic Current Batteries.

No. 00 Faradic Battery.

Brass finish, shellacked case, cotton-covered cords, and two tubular tin handles. \$10 00.

No. 0 Faradic Battery.

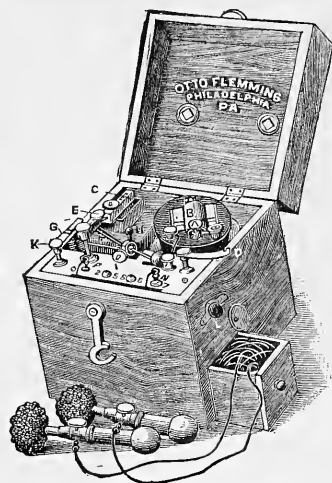
Nickel plated polished case with carrying handle, cotton-covered cords, one regular sponge electrode, and one tubular tin handle. \$12 00.

No. 1 Faradic Battery.

Very much more complete than the former, and highly finished. \$15 00.

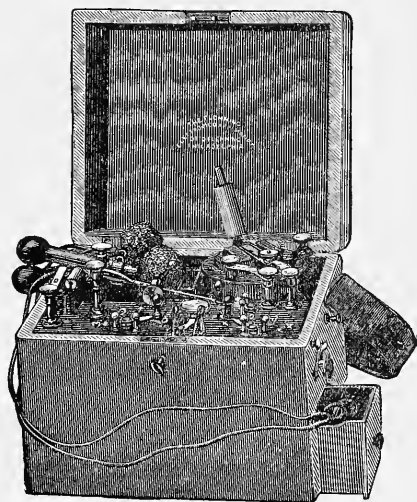
No. 1 Faradic Battery.

With rapid and slow interrupter. \$22 50.



No. 2 Faradic Battery.

Finished as well as the No. 1 Battery, but coil one inch longer, and therefore more powerful, with the addition of a Commutator. Price, \$20 00.



No. 3 Faradic Battery.

This Battery is the finest and most complete of its kind ever manufactured. It is provided with a slow and a rapid Rheotome, or current interrupter, a Commutator, or polarity changer, etc. \$30 00.



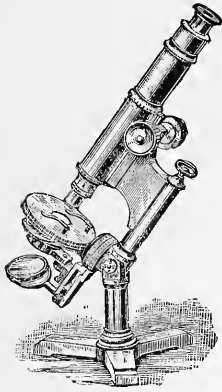
FLEMMING'S CIRCUIT-CLOSING NEEDLE HOLDER.

With one-half dozen very fine Electrolytic Needles. For use in depilation, or removal of superfluous hair by Electrolysis. Price, \$3 50.

The apparatus required for this operation consists of a galvanic battery of from ten to twelve cells, a sponge electrode, an exceedingly fine needle, and the above needle holder.

BAUSCH & LOMB OPTICAL CO.,

MANUFACTURERS OF

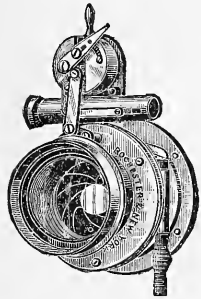
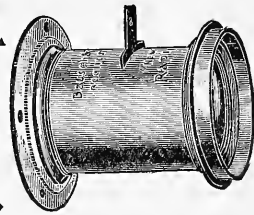


Microscopes,
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PHOTOGRAPH LENSES.



DIAPHRAGM SHUTTER,
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FACTORY AND MAIN OFFICE 531-543 N. ST. PAUL ST.
ROCHESTER, N. Y.,

P. O. Drawer 292.

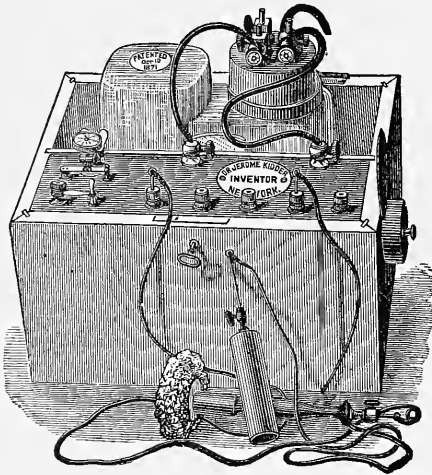
Branch Office, 48-50 Maiden Lane, New York, P. O. Box 432.

MAINTAINED SUPERIORITY.
 DR. JEROME KIDDER'S
 ELECTRO-MEDICAL APPARATUSES

RECEIVED THE
GOLD MEDAL
 From American Institute in 1875,

and the Highest Awards from 1872 to 1888, inclusive, for

'THE BEST APPARATUS EITHER HERE OR ABROAD.'



BRONZE MEDAL

and First Premium at

Centennial Exhibition, 1876

HIGHEST AWARD,

SILVER MEDAL


From Charleston, S. C. Exhibition,

FALL OF 1882.

5 SILVER MEDALS
 From *Cincinnati* Industrial *Exposition,
 FALL OF 1881, 1882, AND 1883.

Medal from Southern Exposition at Louisville, Ky., Fall of 1883,

AND HIGHEST AWARDS WHEREVER EXHIBITED IN COMPETITION.

 Beware of all Infringements upon our Goods.

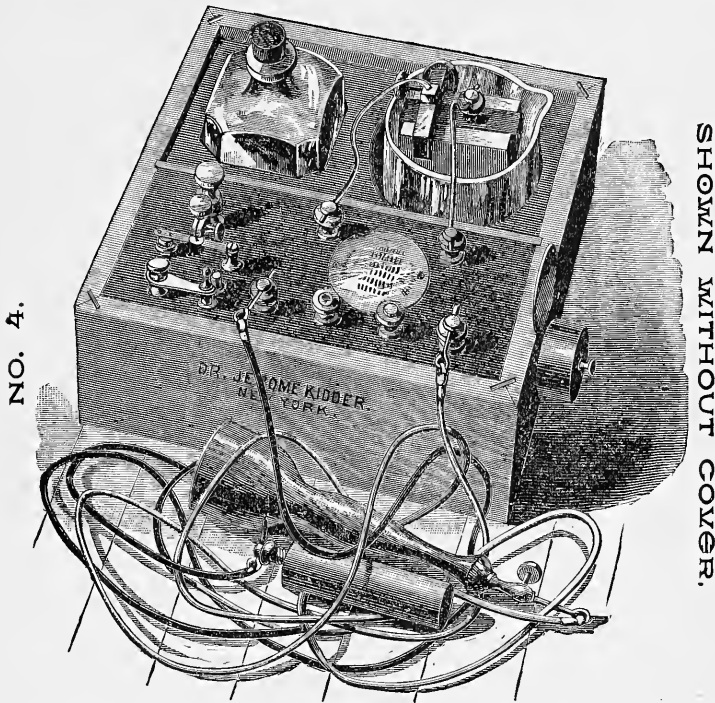
We are sole proprietors. All purchasers of Batteries infringing upon our patents, are held liable for royalty (or cost of goods.) To distinguish the genuine from the spurious send for Illustrated Catalogue. Address,

JEROME KIDDER MFG. CO.,

320 BROADWAY,

NEW YORK.

OFFICE AND FAMILY APPARATUS.



Our Apparatus are superior to all others, owing to the physiological qualities of Electricity they produce, the simplicity of operation, and durable construction.

Improved No. 1—Physician's Office Electro-Medical Apparatus.

Improved No. 2—Physician's Visiting Machine. Turn down Helix.

Improved No. 3—Physician's Visiting Machine, (another form).

Improved No. 4—Office and Family Machine.

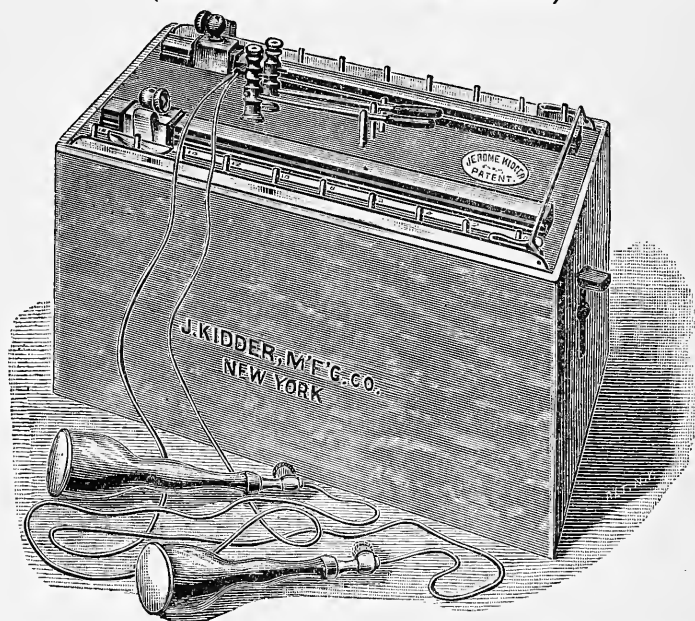
Improved No. 5—Tip Battery Machine, a most perfect and convenient apparatus.

We Manufacture a Complete Line of
Office Faradic Apparatus, Cabinet, Wall Bracket,
Galvanic, Galvano-Cautery, and Combined
Galvanic and Faradic Apparatus.

CAUTION! We are sole proprietors of the "Patent Tip Battery", and all purchasers of infringements are held liable for royalty (or cost of goods) to the Jerome Kidder Manufacturing Co., New York City, N. Y.

GALVANIC BATTERIES. PRIMARY CELL BATTERY.

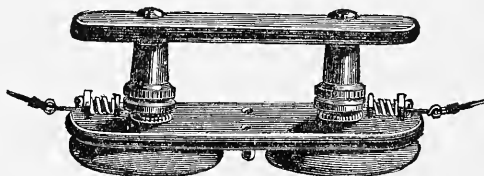
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The construction of our Galvanic Apparatus is such as to possess all the desired advantages necessary for the proper manipulation of the current.

INTERRUPTING, REVERSING DIRECTION, INCREASING THE CURRENT

By Single Cells. Cutting out of circuit cells without stopping the operation of the Battery. The Jars are of Hard Rubber, and the elements are so constructed as to be interchangeable; also removed and replaced without any mechanical tools whatever, thus making the Battery as near perfection as possible.



Electrodes for Galvano-Cautery and Electrolytic uses. Also—A Complete Line of Appliances for various forms of application.

JEROME KIDDER MFG. CO., NEW YORK, N. Y.

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W. T. Keener invites the attention of the Medical Profession
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Medical, Dental, Chemical, Pharmaceutical AND VETERINARY BOOKS,

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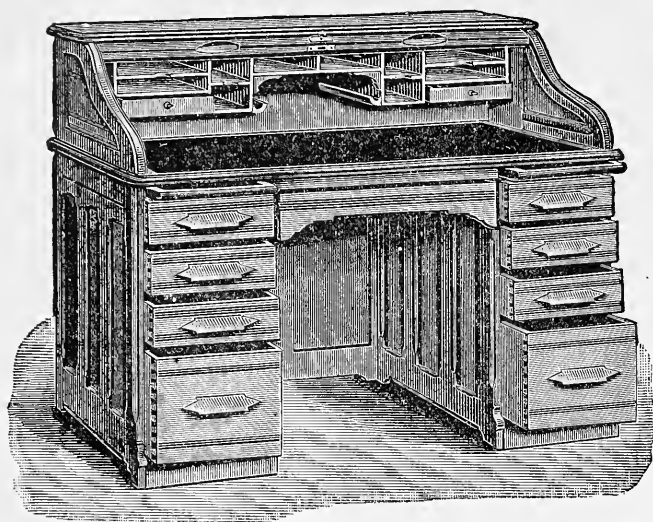
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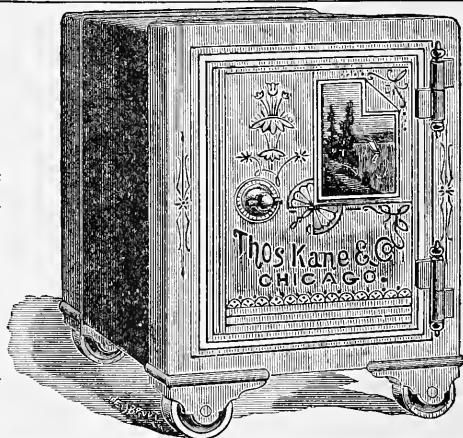
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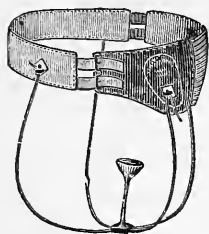


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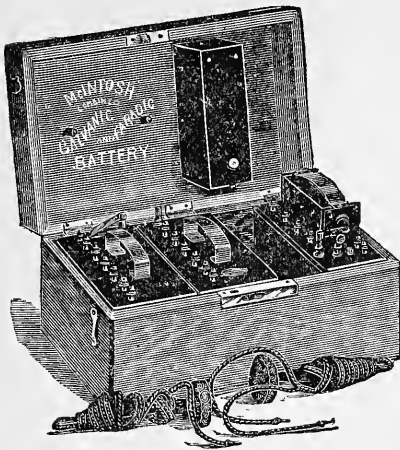
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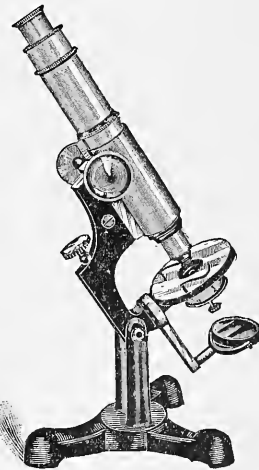
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